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WESTERN
DRAWING AND MANUAL TRAINING
ASSOCIATION

PROCEEDINGS
OF MEETING HELD AT
CHICAGO, ILLINOIS
MAY 5-6-7-8, 1915

TWENTY-SECOND
ANNUAL REPORT

PRESS OF
O. H. DAHLEN PRTG. CO.
MINNEAPOLIS

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Officers and Standing Committees

1916

Meeting to be held at Grand Rapids, Mich.

OFFICERS

President, S. J. VAUGHN,
De Kalb, Ill.

Vice-President, JENNIE W. GILMORE,
St. Louis, Mo.

Secretary, WILSON H. HENDERSON,
Milwaukee, Wis.

Treasurer, LEONARD W. WAHLSTROM,
Chicago, Ill.

Auditor, BERTHA PATT,
Cedar Falls, Iowa.

COUNCIL

Carl N. Werntz, Chicago, Ill.; Fred W. Crawshaw, Madison, Wis.; Emma M. Church, Chicago, Ill.; Robert W. Selvidge, Nashville, Tenn.; Florence H. Fitch, Indianapolis, Ind.; *Ex-officio*, President and Secretary.

STANDING COMMITTEES

PROGRAM: William J. Bogan, Chicago, Ill.; Agnes Van Buren, Grand Rapids, Mich.; *Ex-officio*, President and Vice-President.

EXHIBIT: L. R. Abbott, Grand Rapids, Mich.; Elizabeth C. Buckley, Chicago, Ill.; Edward F. Worst, Chicago, Ill.; George W. Fortier, Grand Rapids, Mich.

EDITORIAL BOARD: M. Emma Roberts, Minneapolis, Minn.; Arthur F. Payne, Peoria, Ill.; Carl T. Cotter, Toledo, Ohio.

Twenty-Second Annual Meeting

CHICAGO, ILL., May 5, 6, 7, 8, 1915.

OFFICERS

President, FLORENCE H. FITCH,
Indianapolis, Ind.

Vice-President, ORA A. BLANCHARD,
Milwaukee, Wis.

Secretary, WILSON H. HENDERSON,
Milwaukee, Wis.

Treasurer, LEONARD W. WALSTROM,
Chicago, Ill.

Auditor, FRANCES B. MASON,
St. Louis, Mo.

COUNCIL

LUCY S. SILKE, Chicago, Ill.

CARL N. WERNITZ, Chicago, Ill.

F. D. CRAWSLAW, Madison, Wis.

EMMA M. CHURCH, Chicago, Ill.

R. W. SELVIDGE, Nashville, Tenn.

PRESIDENT, *Ex-Officio*.

SECRETARY, *Ex-Officio*.

ROUND TABLE CHAIRMEN

ART, Lucy S. Silke, Chicago, Ill.

MANUAL TRAINING, Fred V. Cann, Chicago, Ill.

HOUSEHOLD ARTS, Winifred Frye, Milwaukee, Wis.

VOCATIONAL TRAINING, R. C. Woolman, Des Moines, Iowa.

STANDING COMMITTEES

PROGRAM: *Chairman*, Harry E. Wood, Indianapolis.

George W. Eggers, Chicago; *Ex-officio*, President and Vice President.

EXHIBIT: *Chairman*, Elizabeth C. Buckley, Chicago; Edward F. Worst, Chicago; Emily M. Dorn, Milwaukee; Alexander Mueller, Milwaukee.

EDITORIAL BOARD: *Chairman*, M. Emma Roberts, Minneapolis; S. J. Vaughn, De Kalb, Ill.; A. F. Payne, Peoria, Ill.

LOCAL COMMITTEES IN CHARGE

Chairman, LUCY S. SILKE.

Supervisor of Art, Elementary Schools

RECEPTION

MISS EMMA MARCH, Chairman.

MR. ROBT. M. SMITH,
MR. EDW. F. WORST,
MISS IDA M. COOK,
MR. N. H. CARPENTER,
MR. WM. F. TUTTLE,
MR. T. J. KEANE,
MISS JEANNETTE BUCKLEY,

MR. GEO. W. EGGERS,
MISS GERTRUDE E. ENGLISH,
MISS JESSICA M. FERGUS,
MISS EMMA M. CHURCH,
MISS LILLIAN S. CUSHMAN,
MISS JOSEPHINE PARKER.

HOSPITALITY

MISS HARRIET CECIL MAGEE, Chairman.

MR. FRANK G. LOGAN,
MR. W. O. GOODMAN,
MR. FRED L. ROSSBACH,
MISS MARIE BLANKE,
MISS KATHERINE I. INGERSOLL,

MR. FRANK M. LEAVITT,
MISS LENA M. McCAULEY,
MISS FLORENCE KNEPPER,
MR. JOHN S. REID.

PROGRAM

MISS LUCY S. SILKE, Chairman.

MISS GRACE M. WILLIAMS,
MRS. AGNES C. HEATH,
MR. LEONARD W. WAHLSTROM,
MR. WM. G. WHITFORD,

MR. A. G. BAUERNFELD,
MISS CLARA A. KRUSE,
MISS LAURA B. AYERS,
MISS KATHERINE G. DIMOCK.

HOTELS

MR. CHAS. D. LOWRY, Chairman.

MISS MARY C. SCOVEL,

MR. JOHN A. STEVENSON.

PUBLICITY AND MEMBERSHIP

MR. LEONARD L. BAILEY, Chairman.

MR. CHAS. H. BURKHOLDER,
MR. E. L. VALENTINE,
MR. CARL N. WERNITZ,
MR. CHAS. E. LANG,
MRS. MAUD C. MORRISON,

MISS ELSIE M. GARLICK,
MISS HARRIET L. VINCENT,
MISS JESSIE M. LIVERMORE,
MISS BEATRICE CANNON.

EXHIBITS

MISS ELIZABETH C. BUCKLEY, Chairman.

MR. PERCY H. SLOAN,
MISS FANNY C. DIKE,
MR. T. J. KEANE,
MR. MAURICE BLOCK,
MR. GEO. A. ROSE,

MISS JEAN HUTCHINSON,
MR. ARTHUR BOOTH,
MISS MARY E. FULLER,
MRS. STELLA M. SANBORN,
MR. CHAS. STOFFER.

Program

General topic: "Co-operation in Educational Problems."

WEDNESDAY, MAY 5

Registration, Auditorium Hotel.

Those who arrive later than Wednesday noon will register at Fullerton Hall, Art Institute.

1:30-3:30 P. M.—General Session.

Music.

Invocation, Dr. Jenkin Lloyd Jones.

Address of Welcome:

His Honor the Mayor of Chicago.

Mr. Chas. L. Hutchinson, President of Art Institute of Chicago.

Mr. Michael J. Collins, President of Board of Education, Chicago.

Response and Key to Program, by the President:

Florence H. Fitch, Director of Art Instruction, Indianapolis Public Schools, Indianapolis, Ind.

Address:

Mrs. Ella Flagg Young, Superintendent of Schools, Chicago, Ill.

3:30-5:00 P. M.—Art Round Table, Lucy S. Silke, Supervisor of Art, Chicago Elementary Schools, Chairman.

Topic—"On The Teaching of Lettering."—Ernst F. Dettmer, Chicago Normal College.

Topic—"Some Vital Elements in the New Art Movement."—George Senseney, The New School of Drawing, Painting and Etching, Chicago.

Topic—"Art Appreciation in the Grades."—Myrtle M. Irons, Supervisor of Art, Rockford, Ill.

Discussion:

6:30 P. M.—Banquet, Auditorium Hotel, Banquet Hall, 9th Floor.

Toastmaster, Mr. S. J. Vaughn, State Normal School, De Kalb, Ill.

Informal Talk on Color Photography.—Mr. Harry Wells, Evanston, Ill.

THURSDAY, MAY 6

9:10-10:30 A. M.—General Session.

Election of Nominating Committee.

Appointment of Committees on Resolutions and Place of Meeting.

Address—"The Manual Arts and the New Education."—William T. Bawden, Dept. of Education, Washington, D. C.

Address—"Planning a Course in Mechanical Drawing."—J. E. Painter, Supervisor of Manual Training, Minneapolis, Minn.

10:30-12:00 A. M.—Manual Training Round Table, Fred V. Cann, Lakeside Press, School of Printing, Chicago, Chairman.

Topic—"Manual Training and Industry."—C. L. Woodfield, Director of Chicago Typothetae School of Printing, Chicago.

Topic—"Economics of Vocational Guidance."—R. C. Booth, Vocational Director Chicago Association of Commerce, Chicago.

Topic—"Manual Training Efficiency."—Chas. W. Sylvester, Director of Manual Training, Springfield, Ill.

Discussion:

Noon.—Reunions.—A list of suitable places for reunion luncheons will be furnished by the Local Committee if desired.

1:30-5:30 P. M. VISITING EXHIBITS AND ART SCHOOLS.

Art School of The Art Institute.

Academy of Fine Arts.

School of Applied and Normal Arts.

Armour Institute of Technology.

8:00 P. M.—General Session.

Music.

Address—"What Mental Processes are Cultivated Through the Technical Arts."—Dr. Charles H. Judd, Department of Education, University of Chicago.

9:15-11:00 P. M.—Reception. The Art Institute. Given by the Trustees of the Art Institute and the Board of Education.

FRIDAY, MAY 7

9:00-10:15 A. M.—General Session.

Address—"Art Training in Relation to Retail Merchandise."—

Mrs. Lucinda W. Prince, Director of School of Salesmanship, Boston, Mass.

Address—"Home Planning: The Study of Artistic and Economic Features in the Public Schools."—Estelle Peel Izor, Director of Home Decoration, Manual Training High School, Indianapolis, Ind.

10:15-11:30 A. M.—Household Arts Round Table, Winifred M. Frye, Milwaukee-Downer College, Milwaukee, Chairman.

Topic—"The Purpose and Content of Household Arts Courses in the Schools."—Jennie H. Snow, Chicago Normal College.

Topic—"The Teaching of Color Harmony in Relation to Dress-making."—Gertrude M. Copp, Milwaukee Trade School for girls, Milwaukee, Wis.

Topic—"Raw Materials in the Textile Work."—Edward F. Worst, Director of Elementary Manual Training, Chicago, Ill.

Discussion.

11:30-12:30 A. M.—Business Meeting.

1:30-2:30 P. M.—Viewing Exhibits.

2:30 P. M.—Automobile tour of parks and boulevards with stops at Midway Studios and other places of interest. Arranged by the Local Committee.

8:00 P. M.—General Session.

Music.

Illustrated Lecture—"Art in the Home."—Fred H. Daniels, Director of Drawing, Newton, Mass.

SATURDAY, MAY 8

9:30-10:30 A. M.—General Session.

Music.

Address—"The Weakest Link."—R. J. Leonard, Department of Vocational Education, Indiana University, Bloomington, Ind.

10:30-12:00 A. M.—Vocational Training Round Table, R. C. Woolman, Supervisor of Manual Training, Des Moines, Iowa, Chairman.

Topic—"The Boy or the Trade as an Aim,"—Ira S. Griffith, University of Missouri, Columbia, Mo.

Topic—"School versus Shop Methods."—F. D. Crawshaw, University of Wisconsin, Madison, Wis.

Topic—"Industrial Blind Alleys."—R. W. Selvidge, George Peabody College for Teachers, Nashville, Tenn.

Discussion.

Adjournment.

ADDRESS OF WELCOME

MR. HARRY B. MILLER

CITY PROSECUTING ATTORNEY FOR THE CITY OF CHICAGO

Madam President, Delegates of the Western Drawing and Manual Training Association, Ladies and Gentlemen:—

It is with no little embarrassment, that I appear before you today representing the Chief Executive of the City of Chicago which you have chosen as your convention place.

Mayor Thompson has asked me to express to you his sincere regrets at not being able to be present here today to, in person, extend to you a most hearty and cordial welcome to this city. But I trust you will not take this failure on his part as indicating any less sincerity on the part of Mayor Thompson in extending to you the most hearty and cordial welcome to our midst.

It gives me pleasure this afternoon to appear before you, representing the Mayor of this city, who is in harmony and sympathy with your vocation, with your occupation in life.

Some years ago Mr. Thompson, after having returned from the West, where he spent many years, was elected alderman of the old Second Ward. That ward was on the immediate South Side and it contained some of the wealthiest as well as some of the poorest people in the city; it had within its confines some of the most palatial and beautiful homes, as well as some of the humblest and meanest shacks. And he noticed that the children of the poor did not have a beautiful playground, a beautiful place with beautiful grass, nicely fenced in and fixed up with swings and hammocks and all the things that go to make up the joys of childhood, but that the children of the poor of this city found their playground and had to spend their hours of play and recreation upon the street corner, on car tracks, which were dangerous to life and limb, and in the back alley, which was dangerous to the morals of the children, and Mr. Thompson thought that the great city of Chicago, with all her wealth, with all her power, with all her influence, was looking after the buildings, taking care of the animals, looking after the beautiful streets and parks and flowers and trees, but doing nothing to care for the physical wants of the children, the future generation of this great city. And so he said, we ought to have something in this city which will not only develop the mind and the intellect of the child, but which will develop his physique, will build up his body. He thought, and I think his logic was good, that in order to have a proper

mind in a man or woman, it must be clothed and housed in a good, healthy body. And so he introduced in the city council an ordinance for the appropriation of a small sum, \$1,200, for the location of the first municipal playground in the colored section, one of the poorest in the city of Chicago, Twenty-fourth street and Wabash Avenue, and, ladies and gentlemen, he was surprised that he should meet with such obstinate objection to the appropriation of this small sum of \$1,200. But he had armed himself with logical reasons, with good grounds for his stand, and he called the attention of the city council to the fact that the jails of this city and this state are filled with criminals, with men and women that had done wrong in their lives, who started on that downward path as boys and girls. He said, the city of Chicago and the state of Illinois spend many thousands of dollars every year to build and maintain hospitals, insane asylums, jails and penal institutions of all kinds and characters. He said, an ounce of prevention is better than a pound of cure. His logic was that the expenditure of \$1200 for a playground in which the boys and girls of this city could play under safe conditions and in beautiful environments was better than spending \$12,000 in after years to house and care for those same boys and girls after they had committed a crime for which they could hardly be held responsible. His logic was so conclusive that the city council immediately appropriated the money, and that was the start of what has since become one of the greatest things in the city of Chicago. And the city of Chicago today, ladies and gentlemen, not only stands as the best city in this state, and the leading city of the United States, but the leading city of the entire world in taking care of its children through municipal public playgrounds. So it is with a great deal of pleasure that, as the personal representative of the Mayor, I welcome you to Chicago.

The city is yours. We trust you will enjoy yourselves while you are here and that you will speedily return.

I thank you.

ADDRESS OF WELCOME

CHARLES L. HUTCHINSON

PRESIDENT ART INSTITUTE OF CHICAGO

Madam President and Members of the Western Drawing and Manual Training Teachers' Association:—On behalf of the trustees of the Art Institute I give me great pleasure to extend to each and every one of you a hearty welcome.

It is fitting that you should hold your annual meeting in this building, dedicated to the acquisition and the advancement of the fine arts. It is also proper that we should bid you welcome here and do all in our power to make you feel at home while you are under our roof, and we will endeavor to do so.

We maintain here a museum and a School of Art. Both have been established and are maintained for the benefit of the people. We hold that an art museum should be an art museum and not an art mausoleum. We believe that it should be a center of art in the fullest sense of the word, a center of active and vital life, one that will exert an influence upon the life of the community about it. The value of every art museum is or should be measured by the amount of its influence for good upon the community in which it exists. In this day and generation of ours, an art museum must be something more than a storage of art and artistic achievements. It must be utilized rather than collect artistic objects. It should not only reflect artistic inspiration, but it should furnish inspiration as well, it should seek to inspire and direct those who are designing and executing the familiar objects of every day life.

Such should be the ideal and the purpose of every art museum, and every art school. If this museum and school of ours can fulfill in any measure this function, it will render a valuable service to the advancement of American civilization. No nation has yet professed a great art which has not been successful in the art of decoration, which, after all, is the greatest field of art.

We believe here in the democracy of art. We not only preach it, but we try to put it into practice. Art does not exist for a favored few; it is not intended for the classes, it belongs rather to the masses. It is of the people and for the people and from the people have come the most of its greatest creators. It has been truly said that art is a luxury for the rich, but a necessity for the poor.

And so we offer freely our building, our name, and our influence to

every cause that has for its purpose the advancement of our people and the civilizing of our community. Happily as a people we are beginning to realize that art is not something to be staged and set for a special or a rare occasion, but a thing for every day uses and practical life, and the program prepared by you for this annual meeting bears witness that you too realize this fact and can wisely bring this principle into active use. Your program also announces that you will emphasize another vital truth, namely, co-operation in educational problems. There is no subject, no discussion, more worth your careful consideration and I congratulate you upon your broad vision and your practical efforts.

The trustees of the Art Institute realize, as you do, the importance of such co-operation and are doing all in their power to establish it among the various educational institutions of this community. You occupy an enviable position in the educational world, for to you is given the greatest of all duties, that of teaching children, children of today, who are to be the men and the women of the next generation, and you can give them our arts and our tools, those things that, if properly used, will add length of years to their lives, not in time, perhaps, but in living. You may provide for every fine soul, as Emerson says, a culture that shall conserve and sweeten life and bring joy to him who possesses it as the years go by. It is not our business in this life to make other people good, it is rather our business to make other people happy and ourselves good.

But I realize that the very root of the success of a speech is brevity. Upon an occasion like this not long ago, I attended a banquet, which was intended to be a testimonial to a beloved friend, where four hours of unbridled oratory nearly killed, not only the honored guest, but those that came to honor him. I could not help but think, "Though I speak with the tongues of men and of angels, and have not inhibition, it profiteth me nothing."

I realize that what you are here for is principally to listen to the address of the distinguished lady who is to deliver the address of the afternoon. She knows how to do it and we all know she is worth listening to. So I will retire that she may take the floor and in doing so, I again extend to you a most hearty welcome to all that we have to offer at the Art Institute.

ADDRESS OF WELCOME

MR. CHARLES S. PETERSON

(Speaking on Behalf of the Board of Education.)

Madam President, Mrs. Young, Ladies and Gentlemen: In the unavoidable absence of the Honorable M. L. Collins, I take much pleasure in bidding you welcome.

I could wish that I could have the pleasure of seeing you under more auspicious circumstances. As the Board of Education, we are rather hard up just now, and it is rather like entertaining in the front parlor while the bill collectors are camped on the doorstep. We have 21,000 more children to take care of in our schools this year than we have had before, which costs an average of a little more than \$40 apiece, so that it will cost about \$840,000 more money to do it. On the other hand, we have \$250,000 less money to do it with than we had last year, and that makes a combination that is rather hard to cope with. It is a situation that is engaging the most earnest thought of the Board and its Superintendent,—to solve this problem without resorting to remedies which might be more injurious than the original trouble. We welcome suggestions and criticisms, but we would prefer that the criticism be constructive rather than destructive.

I have made this little digression on the subject of our finances in order to indicate to you that the fact of the Board's making an appropriation for your entertainment, small though it was, shows, in our present circumstances, how highly we value your work. It indicates that the Board realizes fully the necessity of training the hand and the eye as well as the brain, and it will show you, I hope, that it is no mere empty phrase when I bid you, on behalf of the Board of Education, a most hearty welcome.

RESPONSE TO ADDRESSES OF WELCOME

FLORENCE H. FITCH

PRESIDENT OF THE ASSOCIATION

Members of the Western Drawing and Manual Training Association, Friends and Representatives of the City of Chicago in its various phases:

It scarcely needs words to make us believe that the City of Chicago is welcoming us. If you look at the program, if you look at the list of committees, if you will look around this building and see the room that has been given up to our exhibits, you will realize that Chicago has prepared for us. Words are scarcely necessary, but we are very glad to have them nevertheless.

We understand that the Mayor has warned the crooks to leave Chicago, and probably he is busy keeping them out. I think he is quite careful also as to the ones he admits to Chicago, because he has sent the prosecuting attorney to welcome us. I feel quite relieved, however, because he has welcomed us, and he hasn't sent us away.

We feel very sure that the Art Institute is bidding us welcome, as I have said, because of the space that has been given, because of the work that has been done in preparing for us to make us welcome and comfortable. We are very glad to have such a beautiful place in which to meet and to have, in addition to the exhibits which have been brought here, many other rooms full of treasures which are open for us to see. You can judge whether we are glad to come or not, because we are here. We didn't have to come, we were not forced to come, but we couldn't stay away. Chicago has been called—possibly you have heard that it has been called, the "Windy City." It is quite evident, however, that all those of us who have been blown in this direction have not been blown here by force, but by choice, we are here and we like to be here. You have so much here that is interesting in an art way, in an educational way and in the way of beauty. We have, as a rule, given four days or three and a half to our convention and our program. We have felt it necessary to give six days to Chicago, not only because of its size, but because of its public schools, and other educational institutions, because of its art museums and art schools, because of its commercial institutions, because of its stores. There is much here that we must see in addition to all these things. There is the city itself, with its parks, and its playgrounds, its lake and its many other attractions. We are glad to be here, we are glad to be welcomed. We thank you.

KEY TO PROGRAM

FLORENCE H. FITCH, PRESIDENT

Those of you who were at the Superintendents' Meeting in Cincinnati, will pardon me if I repeat a request which came to me some months ago.

I was asked to name some one, who had a good general education, had had experience in the trades, experience as a teacher of manual training in schools, and was artistic in feeling and views. It is needless to say that I did not apply. It was not even offered to me. I told about it in a session in Cincinnati, and no one applied there, although it was a meeting of vocational people. It may have been modesty—probably it was, on the part of some. One man said he thought he had been offered that very position. He had been asked to teach music, physical training and manual training for \$800. In replying to the person who asked me to name some one who had all these qualifications, I said, "People scarcely feel they can afford to spend eight or ten or more years in special preparation for a position which will probably pay only \$800 or \$1,000." The reply was "There is a good salary waiting for the right person, and if we can't find him, we must make him."

Is it reasonable to ask all of these qualifications in one person? I believe, although I have not been definitely told, that that position has now been filled by two people, not one. Is that an answer to the question? If it is a reasonable request that one person show all these qualifications, are we qualified to apply? If not, why not? What qualification do you lack? Have you not had experience in the trades? Can't you teach manual training, aren't you artistic, or haven't you had a good general education? If you lack any one or more than one of these qualifications, why do you lack it? Why was it that in preparing for your work you did not prepare along all these lines? Was it lack of opportunity which may have meant lack of money or time—or possibly cares and responsibilities? Was it that you were anxious to earn money quickly, or was it that you specialized too early? If the last, if you specialized too early—and by you I mean we—ought we not, if that is the case, to guard the children in our care now against too early specialization? Ought we not to give them the general foundation before we start them on one line which will prepare them to earn a living rather than to earn a better living, and to live while they earn it? With your experience, which do you think would have been better economy

in your case, to have prepared for the better position, or to have earned the money quickly?

Now, if these qualifications are unreasonable; that is, if it is unreasonable to ask that any one person possess them all, why should any of us throw stones at any one else for being unprepared along our own line of work? Why should we demand that every one else should know all that we know unless we know all that the others know? Is it true in business, is it true in the trades that the person who knows his own work best knows also the work of others thoroughly? Could the man at one machine go to another and work it in every case? Could the executive person go down and run the machines which are run by the men under his direction? Is the executive person always the one best trained technically? Which one is of more service to the world? Can we all be in executive positions? Should we demand that all be prepared for executive positions? Should we demand that all be prepared for special trades? Can we live independently? Can we live apart from others, or must we depend upon others? People in subordinate positions who have not had general training are sometimes—not always—content to know the one part. They do not feel the necessity of acquainting themselves with the other lines of work and frequently for that reason they stop in the subordinate position. Shall we accept that for ourselves? Shall we be content to know only our own subject? Shall we try to improve conditions, and if so, how? We cannot all stop work now and go back to prepare over again. If we stopped, some work would be left undone. It does seem to me, however, that we have brains enough, all of us, to get some facts, some elementary principles secondhand. It seems to me that it might be possible for me, if I were told that it was a difficult problem for boys to miter corners without the proper machinery, to avoid insisting on having the boys do that particular kind of work. It seems to me, too, if there is difficulty in cutting certain kinds of designs in wood blocks, with a little study I could find the kind of designs that could be cut in wood blocks. We need to know how to manage materials, but we may not be able to drop our work and make a piece of furniture in order to find out everything about joints, and grains, and stains.

On the other hand, others may not be able to stop and take a long course in the principles of design, but I believe those who have had training along manual training lines are capable of grasping in a short course the elementary principles of good proportion and space relation needed in structural and applied design.

You need us and we need you. Why not get together and help each other? You could give what I want. Let me give you what I can, and I think we can work together and help each other. If we cannot know all the facts, we need not be discouraged. If you are sick, you

can go—that is a question of choice—to a scientist, a doctor, an osteopath, the one you think can help you best—and get what you need. If you want a suit, you go to a tailor, even if you do understand line and color, and even if you can handle all tools, except the needle! Can you visualize a suit made by a manual training man? Women sometimes criticize kitchen sinks and high shelves who could make neither, and men sometimes criticize food who can't cook. We don't need to know all the details in order to understand some of the principles. It is true sometimes some of us make inartistic objects, and others make impossible designs. If we got together, might we not make artistic objects, and possible designs for artistic objects?

The object made is the body. We have been told that the body without the soul is dead, and that dead bodies are rather heavy to lift. If that is the case, I feel pretty sure that some of our mission furniture is dead. Could it not be revived by the art principle of good proportion and space relation? Salt we might call the soul of food, but salt alone would not be a very satisfactory or palatable diet; it needs to be in some palatable form. So we need to get body and soul together in order to have a satisfactory result, and this needs cooperation.

Lack of co-operation means loss of time and duplication of effort. Co-operation makes possible a practical development of what might otherwise be an unreal or unrelated problem.

In urging co-operation, those of us who have tried it feel like the small boy five years old, who in speaking of the six-year old boy who was nearly twice his size, said: "I can beat him up." When his ability to "beat him up" was questioned, he said: "No, I don't think I can beat him up, I know I can, because I have." Now, those of us who have tried co-operation know we can because we have, and we know it works.

We need constructive criticism, not destructive. We need to know what to do and how to do it, and for that reason we asked at this time that as many as cared to should send topical exhibits or exhibits that should show progressive steps rather than complete exhibits. We are glad to have both, but that was our reason for asking for topical exhibits.

In much of the work of the trades and vocations we find the different departments help each other. A boy who had gone from the public schools into a lithographing establishment said he had had freehand drawing in school and it had given him "an eye for spacing" which was of help in his lettering, while another boy who had had mechanical drawing "could make letters all right, but didn't have the eye for spacing." In remodeling actual rooms in the grade schools, we have found co-operation the only method of accomplishing even as much as it has been

possible to accomplish in the time allowed. The eighth grade boys and girls start with a bare room and plan the color scheme, working it out, of course, in co-operation with the teachers. They retint the walls, re-finish the wood work, make the furniture, curtains, and table linen, and arrange the room. We find when all departments work together it is possible to accomplish this, but if any one of the departments,—the manual training, art, or any other,—tried to do it alone, it would be almost an impossible task. As it is, principals, special teachers, heads of departments, and teachers all work together. Each takes the part for which he is best fitted, and all consult in regard to final decisions. That makes it easy.

You will pardon me for one other reference to a definite problem, as it illustrates the point I am trying to make this afternoon,—the point of co-operation making things possible.

In the eighth grade and high school study of home and school decoration, it is necessary, or at least advisable, for the pupil to study actual materials. The co-operation between the museum and the stores and the schools has been so close and so helpful in our city that it seemed advisable not long ago to ask the merchants if they would co-operate with us in what we called a "Home Decoration Week." The heads of about thirty stores were interviewed, and asked to put into their store windows, or elsewhere in the building, if necessary, exhibitions of wall papers, draperies, furniture, etc., showing good color schemes, and representing as far as possible well arranged rooms. This they agreed to do. High school and Saturday scholarship pupils made posters to put in the windows, and the children were invited to bring their parents and friends to see the exhibits. The merchants themselves, during Home Decoration Week, gave talks on rugs, wall paper, drapery, and furniture to classes of children, and the children went by hundreds and thousands.

Some things developed in working out the scheme that it seemed to me were quite interesting. In the first place the merchants seemed to be chiefly impressed with the educational value of such co-operation. They spoke especially of the value of training the public, the children being a part of the public, to become intelligent consumers. They became quite interested in what the schools were doing. They didn't know, and when they did learn were in hearty sympathy with the work. One man said: "I have been against the schools, have talked against them, but if you are teaching such things in the schools, you are teaching what is worth while, and I will not only back you, but boost you." I replied, "We have been doing it for years, but I didn't know I had gotten hold of the right man." Another man said: "If you had had such things years ago when I was in school, you couldn't have kept me away."

In the mean time, it took hold of the children also. As a result of this "Home Decoration Week," the children have been re-arranging the school rooms and their own rooms at home; the boys, if they could do no more, cleaning their own bureaus. They have planted flowers in their yards, and trained vines;—doing what little they could to improve the conditions of their homes.

The posters made for Home Decoration Week simply suggested principles of home decoration and good color schemes. In preparation for this the children had to be given a short preliminary course in home decoration, which proves that we need general art training as a preparation for such commercial work. One boy, who had been much interested in art, said: "Well, if these posters are not used in the stores, we have had some good out of it anyway, because it has set us to thinking." It was because the scheme was of mutual benefit that it was possible to carry it through and co-operation made it a success.

The Program Committee tried to select for this convention, speakers who were broadminded and interested in all phases of the subjects to be discussed, and I wish that this Western Drawing and Manual Training Association which has been called the "Association with the long name," might be one in name as well as spirit,—for we are one in spirit. I wish we might, in some satisfactory phraseology, become an Allied Arts Association which would co-operate heartily and thoroughly in all educational problems.

THE MANUAL ARTS AND THE NEW EDUCATION

WILLIAM T. BAWDEN,

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We have been having for a number of years past a great wave of criticism all over the country against our public schools. I believe the crest of this wave is passed. I will not stop to mention the reasons that I have for the belief that that is the case, but I feel sure that instead of so much of this unsympathetic and unintelligent criticism that we have had, we are going to have more constructive work done.

According to these critics, any attempt on our part to solve the problems before us is doomed to failure. They tell us that manual training is dead, for example. It seems to me that we must depend on the members of this organization and other organizations like this one for the leadership in this movement for vocational education, which I think it is appropriate to dignify by the term "The New Education."

When I was invited to speak on this topic this morning, my first thought was to take up some of these discouraging criticisms that we have heard and sometimes are hearing yet, and discuss them, analyze them, and try to show how unfounded some of them are. Instead of that it occurs to me to point out some of the problems that are before us as manual arts workers in connection with this new movement for vocational education, for I believe that we are facing a situation that we might say is critical, at any rate there are real opportunities and real responsibilities ahead of us. This is true, not because of imminent eclipse, nor because of the prospective early elimination of the manual arts from the public school system, as some of these critics have persistently, but mistakenly, predicted; but rather because of the enormous importance fundamentally of the principles of the manual arts in which we are all interested.

I am sure that no one who is informed upon current educational progress can deny that the manual arts are more important and have a better standing right now than they ever had. It is important, as it seems to me, that we should appreciate the responsibilities that are ahead of us; that we should attempt to meet these responsibilities; that we should be carefully studying some of these problems.

In the first place, I should say that we ought to study more deeply, more carefully, perhaps, than some of us have, our own work. If it is true that there are some parts of the work that we are attempting to do

that are without content, as our citizens have said, why can we not re-state those parts of our work and put some content into them, or else stop doing those things that have no real educational value?

It seems to me that it is important for us to put our work on such a basis that it will be less vulnerable to criticism than some of our critics now think it is. If our standards of technique, for example, are low in some places—if in certain grades we are attempting to do certain things that the boys and girls cannot do well—why can we not stop trying to do those things? One fundamental principle, I believe, is that nothing ought to be attempted in any grade, by any boy or girl that cannot be done reasonably well. We ought not to say, "That is a pretty good chair for a seventh grade boy". We ought to be able to leave out that qualification. If we cannot say: "It is a good chair or a good table," let us not make chairs or tables in that grade; and so on.

In this connection, it seems to me we ought not to be dismayed by reason of the increasing study of these problems by superintendents. Some of our manual training teachers, particularly, I think, are afraid to have their superintendents know more than they now know about their work. It seems to me that instead of being afraid we ought to be glad that superintendents are studying these problems, because the more intelligence they put into the things we are trying to do, the more cooperation we can count on from them.

In the same way we ought to be glad that the public in general is studying these things. As was pointed out in the President's Address yesterday, a great deal of this criticism disappears when people know what we are aiming at. We have not always kept the people informed as to our plans.

In the second place, as it seems to me, one of the greatest problems before us, and I think also, one of the greatest duties before us, is more adequate cooperation or coordination between the work we are trying to do in our special fields and the work of the school as a whole—the school in which we are supposed to be trying to fit ourselves. This point was ably discussed by our President yesterday afternoon. It seems to me that we can profit by the mistakes of some of our predecessors who in the early stages regarded themselves simply as teachers of special subjects in the schools, and who knew almost nothing of the subject matter that the boys and girls were studying during the rest of the time. Their interest was confined almost exclusively to the hour and a half a week that the boys were in the shop or the girls in the drawing room or the sewing room.

Of course, there are certain difficulties that are inherent in a scheme for training teachers such as we have had. For example, the regular grade teacher is trained in one institution; the shop teacher is trained in

another institution, and the drawing teacher in still another. The principal of the school is trained somewhere else, and frequently neither the principal nor the superintendent is trained specially for his job. No one of these is really intelligent concerning the propositions or ideals or motives of the others. So long as we get together groups of teachers trained under such different conditions, there is inevitably a certain amount of difficulty in the situation, but it seems to me that we should be those who can appreciate the significance of that problem and address ourselves to its solution. That I should like to put before you as one of the problems to which we should give more attention.

How are we going to solve the problem? Only by careful study of the relation of our special work to the general school educational system. In other words, it seems to me that altho we must be specialists, from the very nature of the case, we, of all teachers, ought also to be students of education in a broad sense. We ought to understand not only our own problem, but we ought to try to understand the whole scheme of education in order intelligently to fit our work into its proper place in that scheme. Then, of course, we must study the work of other teachers, not only other special teachers, but the work of all the other teachers.

In the third place, and very closely connected with this, there is the problem of the analysis of the course of study, especially in the elementary school. We have been insisting for some time that the manual arts should have more time in the public school system, and we are told it is impossible to give more time because there is no more time to give. There is no way to give our work more time, except to eliminate something else. Right there it seems to me we again ought to be taking the initiative, the leadership, in the study of the curriculum in order to ascertain by means of this cooperative study what are really the essentials in the elementary courses of study, and what can be eliminated safely in order to secure more time for the special kinds of work that we represent.

In the fourth place, it seems to me we are facing in recent educational development a very serious problem in trying to decide what to do with the non-intellectual type of boys and girls that are coming into our classes in increasing numbers. This was referred to by Mrs. Young yesterday afternoon. The operation of our compulsory education laws, gradually increasing the age limit for school attendance, is bringing into our schools, and is holding in school longer, large numbers of our boys and girls who cannot, or at least do not adapt themselves to the traditional course of study—the literary part of our public school work. We must study the special needs of those boys and girls and do something for them. It seems to me we ought not to do as other teachers and

principals do, and select very carefully the boys and girls that we admit to our classes in order to make a showing. Almost any teacher, in almost any subject, can be a success if he is given the privilege of selecting the boys and girls who shall come into his classes. By doing that we will simply be following the line of least resistance, and emulating the example of teachers ever since we had schools. On this basis we will be careful to have in our classes only those pupils who can do the things we want done, and in the way we want them done. Any other boy or girl will be eliminated.

I say we must not do that. We are going to be the last resource for many of these boys and girls. If we do not reach them—if we do not meet their needs in some way—they are not going to have the opportunities that ought to be their privilege.

That is to say, if our schools are to become more democratic—which I believe is the fundamental meaning of this new movement—we must do something for these boys and girls who have not been reached by the traditional courses of study. It will not do much good to raise the compulsory school age limit, and try to force boys and girls back into the school without radically changing it, because they have been running away from what is there. Nothing is to be gained by trying to force them back. We, as manual arts workers, are in a special position to study the needs of boys and girls of these groups, and to try to give them the educational advantages that they ought to have.

PLANNING A COURSE IN MECHANICAL DRAWING

J. E. PAINTER

SUPERVISOR MANUAL TRAINING, MINNEAPOLIS

Some time ago my friend, Mr. Wood, visited our city and seemed to be favorably impressed with some of the things we were trying to do. Among these was our effort along the line of developing a course in Mechanical Drawing in the seventh and eighth grades.

Some weeks later I received a letter from Mr. Cann asking me to take a place on the program of this meeting—saying that Mr. Wood had suggested that I say something about Mechanical Drawing in the grades. Noting that Mr. Cann was chairman of the Manual Training Round Table and supposing I was to be on his program, I consented, providing he would be satisfied with a very informal account of our efforts along the line indicated. But, “you never can tell”—what a program committee will do to you when they get a chance,—and here I am on the general program for an address.

Now I wish to assure you on the start that I have nothing to offer that can be dignified by that title.

However, your committee evidently thinks we have done something worthy of mention in the way of developing a course in Mechanical Drawing for seventh and eighth grade boys and it is to this subject that I shall confine myself for a few minutes.

I presume our experience, in some ways, has not been unlike that of most of you who have had an active part in the development of Manual Training in the public schools thruout the country. For many years Mechanical Drawing in the grades has held a subordinate place in the program, being used merely as an aid in the interpretation of the shop problems. The shop problems were also the drawing problems and as a result the Course, such as it was, was illogical both in content and arrangement. The usual proceeedure was to have the boy make a working drawing of an object and then make the object in the shop—and so, one after another thruout the shop course, usually ignoring the drawing in the process of making the object. The shopwork always made the stronger appeal to the boy's interest and the drawing was usually distasteful to him.

I think the reason lay in the fact that a definite time allotment was usually made for Manual Training but no such time was set aside in the program for Mechanical Drawing as a subject.

To correct this difficulty in Minneapolis we began some years ago, to study ways and means of securing a specific place in the program for Mechanical Drawing without shortening the already too meager allotment for Manual Training. The plea of "an overcrowded curriculum" seemed for a long time an insurmountable obstacle and we finally made up our mind that the only way to gain for the new subject the desired recognition was by demonstrating its value thru actual results brought about under existing conditions, no matter how unfavorable.

To this end we divided the two hours a week period allotted to Manual Training and Drawing into two distinct periods, devoting the first eight weeks of the semester to Mechanical Drawing exclusively and the remaining twelve weeks to shop work. Sixteen hours is not a very long time—only two eight hour days—and four such days covered an entire year's work. Yet in this brief time, spread over a period of sixteen weeks, we were able to do at least two things,—1st, to prove that Mechanical Drawing when taught *as a subject* can be made as interesting to boys as shop work; 2nd, to convince the authorities higher up that our claims were at least worthy of consideration.

About this time a new ally appeared in the shape of a demand for a larger recognition of Domestic Art in the curriculum. Previously this subject had not been able to rise above the sixth grade, but now the ladies became active, and by pooling our efforts as it were, we were soon able to bring about a change in the seventh and eighth grade program which gave to the girls one hour a week for Domestic Art without diminishing the time formerly given to Domestic Science and to the boys an hour a week for Mechanical Drawing without decreasing the time allotment for Shop Work.

This was in the fall of 1912. The decision came so late, however, that we had very little time in which to prepare for the new work and but little money available for necessary supplies and equipment. So the first year was largely devoted to getting our bearings and laying our plans for the future. I do not mean that we didn't undertake any real work but under the circumstances our work was largely experimental.

To begin with we had no precedent to guide us and no suitable text to put into the hands of our teachers, so we immediately set about the task of preparing our own. It is our policy in such cases to go into partnership with our teaching corps and make use of all the talent available from that source. I might say in passing, that I believe that if Supervisors generally would adopt that policy they would find it greatly to their advantage, and for the greater good of the schools. So after sketching a rough outline which would serve as a basis for discussion I called our teachers together and we talked matters over and arrived at an understanding as to the character of the work that should be undertaken

the first year. At the same time I named each man a committee of one to make special study of the work and report to me in writing any conclusions which might result from his year's experience. A committee of our Manual Arts Club, consisting of both grade and high school teachers, was also appointed with instructions to make a special study of the problem and submit a written report at the end of the school year.

With these reports, supplemented by my own observations, I was able, during the summer vacation, to formulate a course for the following year. But, regarding the work as still in the experimental stage, we put as little money as possible into the preparation of our text. With the aid of my office assistant enough books, similar to the one in my hand, were prepared in my office to supply each teacher with two copies. From these the teachers were expected to make up their own outlines for the use of their pupils.

New equipment was provided where necessary, a better grade of paper was secured and we were able to enter upon the second year's work under much more favorable conditions.

The committee work was continued and by the end of the second year we had reason to feel that substantial progress was being made. The committee reports were of a constructive character and it was with real pleasure that I, with the aid of my efficient assistant, took up the work of a second revision of what was now beginning to assume the dignity of a real course.

One weakness I had observed was the failure on the part of some teachers to properly interpret the problems and in many cases the work resulted in mere copying with no adequate understanding of the principles involved.—In other words, thought was sacrificed to technique.

To overcome this fault we accompanied each problem in the new revision with a series of hints and questions designed to call attention of both teachers and pupils to the points that should be emphasized in the problems. For example:—

PLATE 1. *Solid Rectangular Block.* Three views. Relation of views. How many views are actually necessary to show all the dimensions of this object? Note the difference between a perspective drawing and a working drawing. Read note one, page one.

PLATE 2. *Hollow Triangular Block.* Invisible edges—how represented? Where do they occur in this problem?

PLATE 3. *T-square.* Each pupil is to draw his own T-square Breaks. When is the broken view employed? What method is used in fastening the two parts of the T-square together? How are nails shown in mechanical drawing? How are nail sizes indicated?

PLATE 4. *Match Box Holder.* What is the difference between a chamfer and a bevel? What method is used to fasten the parts of this

object together? How are screws shown in mechanical drawing? How are screw sizes indicated?

Time will not permit of my going thru the entire course in this detailed way but these few examples will serve to illustrate the method employed in bringing out the content of each of the forty-five problems that make up the course as it now stands.

The next eight or nine problems deal with scale, tangents, sectional views, symmetrical views, center line, French curve, spline, templet, etc., and these points are brought out in the manner indicated above.

Then come two plates of geometric problems and these are followed five design. Simple shop problems, such as Book Rack Ends, Glove Boxes etc., are employed and when each boy has done his best all designs having artistic merit are reproduced for use in the shops.

Plate eighteen is a study in free-hand mechanical sketching and this is followed by a number of problems in drawing and detailing of small articles of furniture—for example, the Foot Stool, Book Rack, Dutch Stool, etc.

Then comes two plates of geometric problems and these are followed by type forms or solids, introducing in a simple way the theory of Orthographic Projection and the Development of Surfaces. The Development of Surfaces is followed up by a series of practical problems, such, for example, as the tin pan, tin pail, square lamp shade, funnel, etc.

And finally a brief study is made of Cabinet and Isometric Projection. The Isometric Scale is explained and some practice given in the translation of Isometric and Cabinet sketches into Working Drawings.

Our aim has been to correlate this course as closely as possible with the shop course, but, while we have made use of a number of the shop problems we have ignored the shop arrangement of these problems.

Explanatory notes cover briefly the following topics:—Working Drawings, Instruments, Conventions, Planning the Plate, and an introductory Sheet showing in detail the method of laying out a plate, the proper handling of instruments, placing of views, lettering, etc.

To get this material in shape for use for the pupils we had the notes and problems printed on loose sheets six by nine inches and the plates, of the same size, were gotten out in blue print form. We grouped the tracings on large sheets in such a way that they could be run thru the printing machine in complete sets—the prints coming out in large rolls of twelve books to the roll. Enough of this material, including covers and brass binders, was then turned over to each teacher to supply a full class and he, with the help of his boys, made short work of the binding.

Doubtless this course is still far from perfect but we are gradually eliminating the imperfections and it is filling a need in our schools better than any published course we have been able to find.

PAINTER

I have brought with me some samples which are typical of the work done by our boys this year and will be glad to have you examine them if you care to. You will note, of course, that the technique is far from perfect but I think you will agree that the thought side has been well looked after. And when you consider that no boy here represented has had more than fifty-four hours work, that more than half of them have had 'but thirty-six hours, and half of that half but eighteen hours, I think you will admit that even the technique is rather remarkable.

WHAT MENTAL PROCESSES ARE CULTIVATED THROUGH THE MECHANICAL ARTS

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Madam President, Ladies and Gentlemen:—

I must confess that I suffer under some embarrassment in appearing before a group of people who are skilled in the technical arts with a subject which relates to these arts, but seems on first statement to be a very commonplace one.

I make bold to undertake this discussion, however, because, as I read the educational literature of the day, I find that we are oscillating between two opinions. We find ourselves at times praising the technical arts as the most important additions to our modern courses of study; every one is enthusiastic about the general educational doctrine that we should learn to think, through action, that we should learn to develop ourselves by doing. There is great enthusiasm for any form of training which involves the use of the hands.

Yet, on the other hand, though we are enthusiastic about these various forms of technical training, I find, when I sit with the members of various faculties, as they deliberate about courses of study, that there is a good deal of reluctance to give the kind and amount of credit for this kind of work which is unquestioningly given for the traditional courses in our schools. I find that the high school faculty raises the question whether after all there ought to be an exact equivalence between the credit that is given for work in the shop, or work in the drawing room, and the credit which is given for a course in algebra or a course in Latin. When I have the opportunity of hearing my colleagues in the University discuss this same kind of credit, I find that they, in common with college and university faculties the country over, are raising a very serious question whether after all we ought to give credit to the work in the technical arts in the requirements of the college.

So I say it is very fitting that we should discuss the question: What sort of mental processes are cultivated by the technical art. Are these mental processes in any sense of the word more important or less important than those mental processes which are cultivated by the traditional academic subjects?

I can hardly justify myself in introducing the topic in this fashion,

however, without calling attention to the fact that when I consult with my friends who belong to the technical group, when I ask those who give instruction in manual training or drawing what they think of the academic subjects, I get a statement which exhibits little hospitality for the traditional subjects. My friends of the shop say that they cultivate the type of intellectual life which is worth cultivating, and when I mention, in behalf of my other colleagues, the classics, or when I speak of the higher mathematics, I draw down upon myself answers which seem inappropriate for me to repeat in this place.

While we have this curious disagreement in educational circles, we are all in sympathy with the technical arts. Never has there been an age when the manual arts have been regarded so highly as our own age; never has there been an age when the manual arts have received the respect and attention that they are receiving to-day. I think we are to be compared in this respect with the men of that golden age of the manual arts when members of the medieval guilds looked on the products of their handicraft as the best expression of their thoughts and feelings. Today, as we cultivate with enthusiasm the arts and crafts, we try to imitate, and, in some respects, we surpass the technical performances of those older days.

Here again we come on a curious contradiction, we appreciate the technical arts, but we must remember that this is a period when the work of the hand is being set aside by mechanical devices; when the great respect which we have for keen intelligence is enhanced, when keen intelligences are managing and directing the art and technical industries of the Nation. We enjoy our contact with those products of the crafts which have been made substantially and beautifully, but we respect more than in any other age the devising mind, the organizing individual.

How shall we reconcile these two points of view? How shall we come to some kind of an agreement that shall make it possible for us to find the place of the technical arts in our educational scheme, at the same time that we maintain the respect which we all feel for the intellect in its more abstract forms?

If I were to begin the discussion by trying to convert you, I think I might try to create in your thinking some respect for those subjects which you frequently regard as wholly abstract, as entirely remote. I should bring to you the contributions of modern psychology, which has shown that there are no intellectual processes of any type whatsoever that are not dependent upon some form of perfectly definite bodily reaction. There is no monopoly of bodily reaction in the shop or in the drawing studio. There is no monopoly of bodily reaction in your arts as contrasted with the other arts cultivated in the schools.

We have become so accustomed, for instance, to language as an ab-

stract mode of expression that we forget that it is one of the finest examples of muscular co-ordination that can be exhibited by any human being. In speaking or singing one exhibits reactions of all the muscles which control the respiratory and oral organs; he must have the control which will bring just the right amount of air to the vocal organs in just the right way to set up a vibration that shall be controlled by the tongue and the lips and the teeth. All the muscular contraction must be executed with absolute precision. There is no set of muscles in the body exhibiting a finer co-ordination of muscular action than those controlling the tensions of the vocal cords. To realize this, one has only to notice the example of inco-ordination presented in a man who stutters, who fails to exhibit a successful series of acts. It is an art to speak, it is an art to enunciate words, it is an art which calls for all the training that we give in the home during those early years before the child goes to school. It is a form of behavior that calls for constant attention on the part of the teacher. It is one of the arts that characterizes human life; it is one of the finest expressions of mind control and muscular energy.

When you say to me that the shop alone requires training in doing, when you say that he who is skillful with the pencil or the brush has a monopoly in the exercise of fine muscular co-ordination, then I must appeal to you to study the movements involved in the articulation of words.

Now, there is no such breach between the technical arts and the traditional subjects as we have sometimes thought.

We might take up the more subtle psychological discussion of academic subjects. When I listen to a poem, to a song, when I hear music there comes into my being a series of reactions that are determined by all my earlier training. My heart beats at a different rate, it takes on the rhythm of the song I hear. I find my respiration changing its rate and character. No one can go down the streets and hear martial music without realizing that every muscle of the organism is responding to the sound that comes into the ear. These experiences all show the importance of behavior even in literary and abstract courses. When I read a bit of literature that is not rhythmical or poetical, there comes to me an intellectual process which is aroused by the sentiment expressed in that bit of literature, and the response I make is a response from the whole living being and I assent to what I read or I dissent from what I read, and that means that there is throughout my whole muscular system a type of tension and response which is so characteristic that I have not the slightest hesitation in asserting that the tension is a mode of muscular behavior.

Psychology tells us that every mental process arouses within the individual its corresponding mode of response, and that the mode of response is the explanation of the type of emotion which attaches to what we read and what we think. It is behavior which is expressive of in-

dividuality, it is behavior which is cultivated as we cultivate individuality.

Max Mueller used to say that if you strike a human being you get back a response that is just like the response that you get back from a bell, a response of active, vigorous vibration, and his critics call his Doctrine of Speech the "ding-dong theory." It has been the function of modern psychology to justify Max Mueller in that statement, for if you give an impression to a human being, you get back a response, full, vibrant, energetic. If he assents you get one type of response; if he dissents you get a different form of response.

I believe that the teachers of the technical arts ought to realize that all forms of traditional training which are going on in school are forms of training in behavior. Training in behavior is slow and requires much contact in many ways with the environment. You only need to visit the gymnasium to realize that wherever grace, beauty of action and freedom are to be cultivated, you have a long period of labor ahead of you. It is no less true that ability to get on in the world is a form of behavior and that this ability requires much training. He who is not at home in his environment, gives clear evidence in his forms of behavior that he is not trained in meeting the world about him. We have no difficulty in picking out a stranger as he walks uncertainly down the street, not knowing where he is going.

Life is full of training in reaction; life is nothing but training in appropriate reaction in the environment in which we live.

Now, turning from the defense of the earlier subjects, may I be quite candid in making this other assertion to you? I believe it is your duty to defend your subjects to the academic world. The newcomer is always the applicant for place. You are the newcomers. Long since the academic subjects established themselves in our institutions of learning, and if you believe that the academic subjects are going to come to you and ask that you in some fashion supplement their inefficiency, you are likely to wait a long time; for the fact is people do not go after strangers, people wait until the strangers come and present their case. It is for you to recognize the fact that as strangers, it is your duty to exhibit in some fashion those attractive characteristics which I am sure you possess, I say it is your business to come to the academic world with a clear statement of your purposes and modes of work, and then I believe you will find large hospitality for the kind of subjects that you give, and a reception that will seem to you entirely in keeping with your estimate of the value of those arts which you cultivate.

My plea to you is to recognize the fact that there are those who are ignorant of the advantages of the technical arts. Many of these sit in judgment, simply because their seat is the traditional seat; they are the people who are already established in the academic world; they should

be appealed to, and should be made acquainted with the virtues of your subjects.

If I am right in this plea, you have before you the definite problem of expounding your subjects. You ought to tell those who are skeptical what you cultivate in the shop in the way of intellectual processes; you ought to tell them what you cultivate in the studio when you teach children how to draw and paint.

Again, I say I believe you have a strong case, and so, if I may, I am going to rehearse before you the case as I might present it to some student of academic subjects who is skeptical. This I submit as an example of what you should do in correcting the widespread traditional opposition to the mechanical arts.

Of course we shall begin in true academic fashion—because that is the only point of view we have—we shall begin with a historical discussion. We shall ask ourselves what kind of mental processes have been developed in different stages of the development of technical art.

Let me give first, the general principle which it seems to me will issue from our discussion. I think we shall find that the early stages of the manual arts were very primitive in character and made no large demand upon intelligence. But I think we shall be able to demonstrate that as the manual arts have progressed, they have stimulated the cultivation of progressively complex intellectual activity.

It does not follow that intellectual activity will in every case accompany manual activity. Here, as in all teaching, much depends on the method and content of instruction. Barren and unproductive drill appears in every kind of class room. Formalism is no characteristic of academic subjects as such. Formalism appears in the manual training shop exactly as it appears in some Latin classes. It is our business to understand the technical arts and to eliminate formalism and I think we can do it if we understand the virtues of the technical arts and those higher forms of intellectual activity which they are capable of cultivating if they are appropriately administered in the schools.

So I invite you to go back to the early days of technical art, or if you will, one step farther. We may take our first lesson from the psychology of animal behavior. All animal adjustments are very direct. You never saw a dog sit down and cogitate for half an hour on some profound problem. No, he goes to sleep rather than do that. He has a perfectly simple doctrine. When he isn't thinking about something of immediate importance, he gets ready for the next thing of immediate importance. The characteristic of animal life is that it goes directly at its task. We express that by saying animals do not have ideas. They always see something they want, and it is definitely before them, and they go directly about the business of getting what they want. Animals do not use tools.

There are some stories about an elephant that learned to use a log as a lever and there are some stories about a monkey acquiring considerable skill with cocoanuts as weapons, but the typical fact is that the animal has no attention for a tool. If his mind is concentrated upon a thing, then his whole active being goes after that thing. If you offer him a tool, then he becomes so absorbed in the tool that he forgets the other thing. You will find that the moment his attention begins to oscillate between two things, he loses sight of what he was after originally; it is never possible to include two objects at the same time within that narrow range of the animal experience.

With the child, it is very much the same. You give a child a lead pencil and ask him to write, and you will find him so absorbed in the color of the lead pencil and the difficulty of taking hold of it, that he doesn't do any writing, because it is all pencil, it is no writing.

We see accordingly how even the earliest use of tools implies a high degree of intelligence. Think of the primitive man who first invented a needle. He was passing some thorn bush and it tore his flesh and he turned around and looked at this thing. No animal would do that; the animal would only go on and attend to his torn flesh, but the man turned around and looked at the bush that had just torn him and he had the genius to say to himself, "That is a good device, it tears me, and it will serve my purpose by tearing something else." I do not know exactly what he did next, but he took this thorn away with him as a part of a new world of his own making. Thus man performed the intellectual operation of reconstructing the world, because he took that thorn which in nature had one set of relations, and he put it into another.

Again, primitive man cut his foot on a sharp stone. Undoubtedly that caused him the same kind of animal pain that it had caused the beasts through all generations, but instead of kicking the stone aside, or leaving it, he took it in his hand and he made use of it. That requires intellectual genius, that requires mental acumen, to see that a new kind of relation can be set up.

The same thing happened when primitive man took to himself a club. He saw a root, a knarled piece of wood lying in the forest, and he took it in his hand realizing that it was a powerful reinforcement to his hand. He attacked his enemy, thinking, "this thing I have gathered, this knarled root will serve me as a weapon of defense to use against my enemies." He went further and said, "I will improve both ends." So he improved one end by making a good, smooth handle out of it, and he took great satisfaction in being at that end; into the other end he stuck everything he could fasten to his tool. He got some sharp stones and bound them to his club, thinking of that remote opportunity when he could use that tool.

After improving the form of his club, he began to think of the ma-

terial of which it was made. He looked it over and he said, "It is too bad that I shall break that club some day, this is weak material which nature has provided for me. Go to, I will find something more permanent." He went to an obsidian quarry and he found some stone. He didn't have unlimited genius, he could not make an absolutely new weapon, but he could imitate nature, and he could put into the pattern which nature furnished him a new kind of material.

Mark the change. When this man discovered the method of making his tool more permanent and valuable through the use of stone, he took the first step toward civilization. We say that the stone age marked off man from the animal and marked him as a new creature. Why? Because it gave him a new view of the world, a view which showed him with perfect clearness that it was possible for him to take nature and her instruments and fashion them after his own thought. And so he was stimulated to think, to take an attitude toward the world which was no longer the primitive direct attitude of animal life. He was stimulated to travel that road which has always been traveled since, until he has ascended the scale to a point where he can no longer be compared with animals.

Let us follow the next step. Some genius of these early days was working with a stone and found that it could be better worked when it had been subjected to the flames. We see the skill with which the arrow head is chisled out of stone, and we have learned that in many of those early tribes it was known that the secret of the art is to heat the stone, and then by dropping cold water on the stone to scale off chip after chip. That was great art, the man who had arrived at that stage not only saw form and material, but he was also impelled to study methods.

Some artisan of those early days came upon a substance which was better even than stone. He put this material into the fire and behold, it became more plastic and so he had discovered metal, and there were opened before him even greater opportunities. He molded this material to his will, and then after the molding process was done the substance took on that permanent character which made it possible for him to use his tool for a long period of time in the most effective of operations.

Thus we see man progressing in the individual arts, but do you note that every step he took called for a new type of vision, called for a larger range of imagination, for a new form of attention? If you will defend yourselves before your academic brothers and sisters, say to them: "We are not giving this work in the practical arts merely for the purpose of cultivating the automatic processes of education, not merely for the purpose of cultivating those forms of behavior which pass from point A to point B with precision, we are working rather for those insights into nature, which lie beyond the vision of the primitive man."

They will understand you if you talk in these terms, for literature is nothing but a remolding of the world, so that it may feed human desires and human emotions. An art, whether it be technical or literary in type, is nothing but a record of the world in new form and the intellectual processes you are cultivating in the school are those which have remodeled nature in keeping with human emotion and human thought.

One might go on with the study of primitive art, but it is not enough to base our defense on its historical aspect.

Let us make an analysis of the child whom you teach in the workshop. What type of mental processes do we cultivate in this child who works in the workshop? There is much experience, it is subtle in its character and it is difficult to analyze.

When the ordinary man cultivates any one of these practical arts involving a fine muscular co-ordination, he finds it very difficult to explain what has been going on in his mental life. Do you know what happens when one learns with delicate touch to lay color on canvas? Do you know what happens when the child takes one of the rougher tools of the workshop and begins to try to manipulate that tool so that it shall respond to his will? There is a psychology in every tool with which you deal or with which the child deals. For example, take the saw. If you are a child you grasp it in your hand and begin to work. Any child gets from this tool such an abundance of bewildering experiences that he hardly knows what to do with it. He feels it in his hand and when it comes in contact with the wood, he feels the pressure, he feels the new sensations which come to him through his skin and he looks at the point of attack and his eyes are full of color and form. This great mass of experience flowing into his consciousness bewilders him. We say to him, "Go slowly, take one stroke, then wait and readjust." If he should go on, at the end of the first stroke he would be getting so much more experience that he would not know what to do with himself. Watch him after he has made a little way into the board with the saw. He gets even more experience than at first. Now, the saw turns and binds. He gets more experience, but he does not realize the fact that he has been turning the saw. The moment your skilled technician gets the sensation that comes from the saw binding in the groove, he knows what is wrong, and he handles the saw so as to bring it in proper relation again with a turn of his hand. But your boy is bewildered. He gets so much sensation that he does not have attention for anything else. There are more lines before him than he has any appreciation of, the lines get mixed up on the saw, and if he lands anywhere near the line he is very grateful for that much of an achievement. The process of learning is a slow unraveling of all this mass of experience. Skill comes from adjusting movement to sensation. The student learns to be attentive to just those sensations that are needed to fit the demand of the moment.

You and I learned long since to walk. Learning to walk means that we neglect certain sensations and we pay attention to others. I run down Michigan avenue and what do I see? I see a whole host of my fellow-beings. Do I pay any attention to them? No, I have learned to neglect all of them, and the only use I make of these hosts of my fellow beings is the use that is necessary to avoid collision. I make my way down the streer because I am skilled in avoiding this difficulty. That is what the boy has to do, he has to learn why that board changes its tension every minute, it is a hard board, it is a soft board, it is a board that is inclined to go one way or the other. Skill means that the boy has learned what sensations to realize and what sensations to neglect.

Then again, the saw is an entirely different kind of an instrument from the hammer. You take a hammer in your hand and you start out to hit a nail; in certain cases of this kind everybody knows just what is going to happen; in another case nobody knows what is going to happen. When the child takes that hammer and tries to have it pass through space in a perfectly vertical plane, he does not succeed, he does not realize that he has in his hand power to turn that hammer a little to the left or the right. The artisan has learned to handle that tool in response to the sensations in his hand and it comes down with perfect precision.

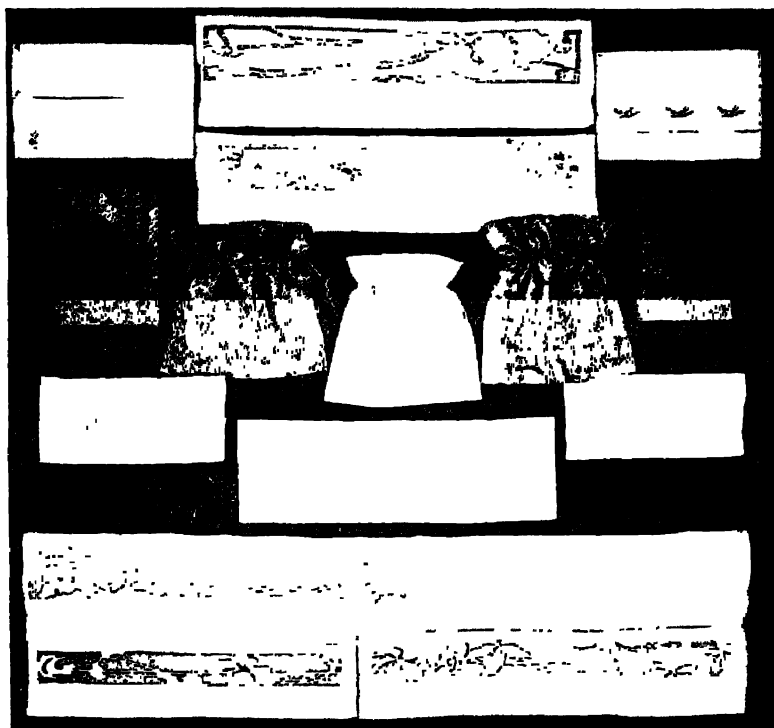
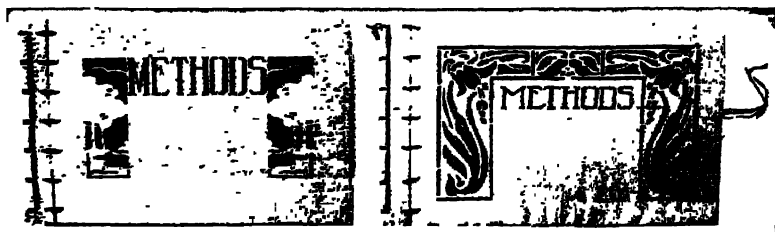
You can go on with every one of the tools used in the shop and you can imagine the mental processes that the child has to cultivate; processes of selection, setting aside certain sensations, cultivating others, and responding to them with delicacy and promptness.

That is one type of intellectual processes that you cultivate. It is the same sort of skill that one cultivates when he learns how to deal with a language that he speaks, and when he cultivates all the niceties of grammatical form that make it possible for him to move through the sentences without hesitation and embarrassment, the same sort of adjustment of forms of behavior to ends.

Not only so. You ought to say, "We cultivate an attitude toward the world that is an attitude of careful analytical observation." When your boy has made a table in the work shop, do you suppose he ever passes a table in the same spirit that he brought to that shop? No, that boy knows what has gone into this joint or that joint. If he sees a joint yawning, he knows what the difficulty is; if he sees this or that joint fitting closely together, he is looking at his world in terms of a technical artist, of one who has seen this thing worked out and knows the origin and the kind of result to be expected. He understands this experience because he himself has entered into that experience, and the artist is after all the individual who sees in the world all the fine workmanship of color and balance and form which he himself has tried to produce. It you have tried to produce, even if you have done it very

clumsily, you look out on the world ever after with a type of appreciation that never comes to the individual who has never tried. Your justification for such instruction is not different from that of the teacher of literature. Ask such a teacher, "Why do you ask the class in literature to write out in a stumbling way some experience?" The answer comes back, "We ask the student to write in order that he may appreciate the contrast between what he has done and what is really good, that he may have a view of the world of literature which is keener and clearer than ever before, because he has realized the difficulty of reaching the highest excellence."

Defend your art, cultivate forms of expression which are understood by your academic colleagues, show them what is meant by intellectual analysis. By cultivating this sort of acquaintance with these academic fellows you will find yourself raising the standard of what you do. You will find that no longer can you go into the manual training shop and simply see boards sawn asunder and stuck together. No, you can go into your shop now and realize that what you are training is fine sensitivity, gained in contact with a real world; you will realize you are training a form of behavior exactly as the student of literature is training a form of behavior. You will find that as you give constructive analysis to boys and girls in the studio, or in the workshop, you are giving the same kind of constructive analysis that the physicist is giving in the laboratory.



Normal Art School, Handicraft Guild, Minneapolis

ART TRAINING IN RELATION TO RETAIL MERCHANDISE

MRS. LUCINDA W. PRINCE

Founder of Boston School of Salesmanship, and Director of Salesmanship
in High and Continuation Schools, Boston, Mass.

In introducing Mrs. Prince, the President said:

You know that our topic is "Co-Operation in Educational Problems." We have been very much interested lately in the co-operation between stores and schools. We are specially interested, many of us, in the necessity for art in everything, the necessity for artistic buildings, artistic equipment, artistic material in the schools and in the stores. We feel that it is just as important to train the intelligent consumers to know what is good, and how to buy, as it is to train producers. We feel that when people demand the good things, the stores will supply the good things, and the best stores are supplying good things now. Because of our interest in this, we were very much interested in hearing about the work of Mrs. Prince of Boston. Mrs. Prince is a teacher of salesmanship in Boston, and she made me promise that I would apologize for her being here—just why I do not know.

In talking with some of our merchants in regard to the Home Decoration Week in our own city, of which I spoke to you the other day, one merchant listened quite politely while I read a letter explaining the plan of our co-operation with the stores, but he finally interrupted me, and he said: "I beg your pardon, not to discount what you are doing or what you plan to do, I want to tell you that I have just been to Boston and I went down on purpose to see a certain woman there"—when he got as far as that, I began to laugh and said: "Wait a minute, Mrs. Prince is coming to Chicago to talk to us at the meeting of the Western Drawing and Manual Training Association, and she is coming to Indianapolis first." He took out a piece of paper and asked: "When is she coming?" And I don't dare tell you what he said about Mrs. Prince, I am afraid she would leave the stage; but Mrs. Prince is here to give her own message.

MRS. PRINCE.

Miss Fitch is right in saying that I had great hesitation in accepting an invitation to come and speak before a body of trained art teachers like this because I am not trained in this specially, but it is because I care so much for the subject and because I have met in training girls for department store work so many interesting things connected with your subject that I want to tell you what an opportunity there is for you in high schools and the stores to teach in such a way that these particular girls will become interested in the art course itself.

The teaching of Color and Design in the Salesmanship School conducted by the Women's Educational and Industrial Union of Boston presents an interesting problem and a unique opportunity. Certain special conditions exist. In the first place, the pupils all come from the industrial class as all are employed in some capacity in department stores. There is often a wide variation in age. Nearly all have had "drawing" in school, and the majority do not care for it and are afraid to undertake any further study because they think that Color and Design should be studied only by those with native ability for painting and drawing.

The function of the school itself must be considered. The pupils attend the school fifteen hours a week for twelve weeks, yet receive the same wage that they would if at work all the time in the store. This arrangement places the teachers under special obligation to make their subjects so concretely valuable as to increase the efficiency of the girls in their work. The teacher, then, has a class of pupils who, for the most part, lack either natural or acquired background for the appreciation of beauty in color, line or ornament, and who are prejudiced against a subject thought to be hard, uninteresting and intangible. She must make her teaching very practical so that the merchants will get satisfactory returns on their investment of the time of their salespeople, and in three short months she must really teach big principles, implant them so that they will take root, bear fruit and flourish in the concrete form of improved salesmanship.

In the time allotted to the subject we cannot expect to go at all deeply into any of its phases or to lay any very broad foundations. In general, our aim in the color work is to develop color sense, and in the design, to help the pupils develop good taste. From our own shopping experiences, we must all be aware that customers are more or less at the mercy of the saleswoman who shows the merchandise. They must have something, but can buy only what is shown. And so it happens that many women, lacking independent judgment, wear the clothes which the saleswomen's taste dictates, and furnish their houses with the haphazard selections from several department stores. Frequently such a

customer has an unsatisfied feeling that she should have spent her money to better advantage, that the effect produced by her costume or her furnishings is not what she had thought it would be, but she thinks that she did as well as she could under the circumstances. Our course in Color and Design is based on the principle of service to the customer—of helping her to get the right thing. This is as vital a principle in salesmanship as it is in art, for the advertising value of a satisfied customer cannot be estimated in dollars and cents.

We usually begin the course with the study of color because the girls find it simpler than design. They are more familiar with distinctions in color than in design and are more sensitive with regard to its use. In this, as in our other courses, we emphasize the educational principle of apperception. We first discuss the girls' interest in the subject and the importance of a knowledge of color in store work. To this discussion they respond well, drawing upon their own selling experiences for examples of customers' need to help and advice in such matters as matching sewing silk to dress goods or selecting a becoming hat or waist. In the display of merchandise, also, they realize that a knowledge of color relations is invaluable. Observe silk petticoats on a reel, bolts of ribbon on a showcase, a display of colored dress goods,—“all the latest shades”—the use of backgrounds, in the average department store, and decide for yourself whether or not it would help the business to teach color in a practical way to a group of salesgirls. Without realizing what they are doing, the girls tell the teacher that they need to know more about color, and their interest is gained without effort. After a brief review of the source of color and the six standard colors as revealed in the rainbow, we pass to the intermediate hues emphasizing the fact that the recognition of these hues is a matter of careful observation and that the average untrained saleswoman does not understand their subtlety, cannot explain to a customer the difficulty of matching them, and does not know how to use them in combination.

By the use of much illustrative material, ribbons, dress goods, flowers, feathers, anything that we can get, we drill the class on the recognition of colors until each one has trained her eye to detect even very fine distinctions. After a lesson or two, the class work is varied and developed by further distinctions in value and intensity; the correct use of the words “tint” and “shade” is taught, and the treatment of intense colors is discussed in detail. Again, illustrative material is always on hand to make the particular question clear to everyone and to increase the interest of the lesson. Color combinations are taken up next. The girls are asked to report their observations of colors worn by people whom they see on the street, in the store, at parties, anywhere. Color schemes followed out in the big window displays are discussed crit-

ally and reasons for opinions are always asked. If the arrangement was considered poor, desirable changes are suggested. The advantages of conducting the lessons in this way are obvious: (1) the girls' powers of observation are developed and thus a basis for independent study is established; (2) their interest in the subject is aroused and held because they themselves supply much of the material for discussion. It

is so difficult to lay down even general rules for the colors which may be worn by different types of individuals, that we do not attempt this. Members of the class representing distinct types of coloring are used as models. As various colors are tried, the girls see for themselves which ones are most becoming and with the help of the teacher in analyzing each case, they learn how to apply the points of the lesson to the needs of their customers.

Each girl is asked to bring samples of materials for a street suit and silk waist or a dress for herself. The colors and material must be suitable for her and the color combination must be good. They are often surprised to see how difficult it is to find a silk lining which really matches or harmonizes with the woolen coat material and then they begin to realize that good dressing is more a matter of care and thought than expense. When the samples have been accepted as satisfactory, the girls trim them carefully, arrange and paste them in orderly fashion on a colored background, and label them. The exercise affords excellent training of many kinds.

Some laboratory work is required but since the short term makes concentration necessary there is much less of this than in the usual school courses. Crayons are used instead of paints, to save time. The small Milton Bradley color tops are very helpful in teaching the blending of colors.

In the study of design, there is constant reference to color and frequent review of the principles already taught. For instance, one class exercise in the arrangement of different kinds of merchandise for display on a table or in a show case involves questions of form and size, of spacing, of background and of color. Design is so vast a subject that a teacher must select for emphasis the points which can be best adapted to the needs and possibilities of the group. In our school, two or three lessons are given to the study of units as the basis of decorative design and here, as in the case of color, we use actual merchandise to make it all clear. For the study of line in relation to dress, the class "models" are again called forth to try on hats of different shapes and to prove the becomingness of sundry yokes, collars, waists, and skirts.

The study of color is perhaps most combined with design when the discussion of furnishing is begun. Here indeed is a big and interesting field: Starting with a lesson on conventional and naturalistic treat-

ment, the teacher quickly discovers the artistic preferences of her pupils. Two sofa pillows are held up for inspection—one with a life-like representation of a dog chained to the door of his kennel, or with a canoe containing a pair of lovers, an appropriate sentiment being embroidered at the side. The other pillow is unobtrusively but attractively embroidered in a simple border design in good color harmony. They represent, of course, the "good" and the "bad" pillow. The so-called art departments of the stores are full of "bad" pillows and it is no wonder that the girls like them for few of them have seen anything else. Nearly every girl in the class will prefer the naturalistic pillow. The teacher, who has given no indication of her preference, asks analytical questions. Why do we have pillows? Are they intended primarily for comfort or for ornament? May a pillow be both useful and pretty? Is a pillow as useful as it ought to be when it must be carefully placed in a certain position in order to look right? If you had a headache and wished to rest, should you choose a pillow decorated with a dog or one that had a simple cover? As one stands before a class, it is extremely interesting to watch the growth of ideas as these new aspects of familiar things are presented. The change in taste is very gradual but it takes place in the majority of cases. The same plan is followed in discussing the design of all sorts of useful articles. The school has made a collection of freakish objects representative of the trash offered for sale everywhere. A peacock with tail outspread in concave arrangement functions as a card receiver, the support of the entire creation of plated silver being not the peacock's legs, as might be supposed, but wild rose sprays. Heavily-gilded, over-decorated clocks which will not run, cream pitchers in the form of animals, a basket which yields its contents only when tipped over—these are examples of the "objets d'art" in our freak museum. Everyone knows how such things abound inside and outside stores. Because this kind of "art" is so familiar, the pupils accept it as good and anyone who hopes to set a higher standard for them must approach the subject carefully. A china frog, highly colored, six inches in height, is held before the class. The creature is standing on its hind legs and its wide-open mouth is the beginning of a passageway leading to the base of the object. Plainly a receptacle, the question is—"What is it intended to hold?" Someone says "Flowers," but no one can think of a flower which would look well in it. "Matches" is suggested but the depth is too great. Finally someone says, "It is intended for an ornament," and the teacher asks, "Should you like to have it in your room?" The laugh which follows answers the question in the negative and the class is by this method led to see that this, like hundreds of other ridiculous objects which flood the market, has no justification for existence. "Fitness of form to purpose" is thus established as a guiding principle

and it is then easy to stimulate interest in good design in wall-paper, floor-coverings, dishes, lamps, and the objects of daily necessity with which we are all surrounded.

To some persons it might seem unwise, from the business standpoint, to open the girls' eyes to the demerits of such merchandise as that just described, since they may be called upon to sell it. No one need feel alarmed about this for the goods sell freely—witness the tons of it turned out by the manufacturers—but if a girl is able to influence some of her customers to buy the thing which she respects because it is well-designed, she raises the level of appreciation, and in so doing, contributes something to the world's advance. We introduce a bit of economics here, explaining to the class the significance of the statement that "every consumer is a producer" and helping them to see their responsibility and opportunity in dealing with the public. We tell them about the Arts and Crafts movement and William Morris's ideal of a vocation,—that "he should contribute to the daily material comfort and pleasure of the world, that he should make places good for the body to live in and fair for the eye to rest upon and therefore soothing to the soul," and also explain his belief, so expressive of his socialistic tendency, that the worker is degraded when obliged to make flimsy, specious articles instead of those which are lasting and sincere. This helps them to appreciate the worth of simplicity and increases their interest in selling merchandise which is reliable and good. When the girls marry and furnish their own homes, they find themselves with a basis for selection which makes this important undertaking unexpectedly simple and enjoyable. Many of them have testified to the great personal benefit which they have gained from our Color and Design course. Toward the end of the term, the class is taken to the Art Museum and for most of them it is a first visit.

In the course which has been briefly described we had the help for three years of Mrs. Wilhelmina Dranga Campbell, who before her death in 1912 helped her husband most ably in developing the artistic side of the industries organized for blind workers. A graduate of the Normal Art School, Mrs. Campbell was pedagogical in her instruction, true in artistic instinct and had, in addition, the rare power of adapting her wide knowledge and unusual gifts to the needs and comprehension of a particular group. In the terms of vocational education, she made the course "function from the occupation" as no one who has followed her has been able to do. Some highly trained and talented art teachers fail in teaching an industrial group like this one of salesgirls, because they do not apply the principles to the material that the girls handle, and because they fail to see the interesting problems presented by the girls' work. As a result, it sometimes happens that a teacher without special

art training but with understanding of the special conditions represented by the class, will be more successful than the artists, because she connects the teaching with matters of daily interest in the girls' lives.

This in brief, is an outline of our course and a list of examination questions which the girls are expected to answer:

OUTLINE FOR COURSE IN COLOR AND DESIGN.

I. Color—

1. Relations of Color Hues
 - A. Flowers
 - B. Fabrics, e. g. Silk, etc.
 - C. Colored Crayons
2. Relation of light and dark tones

Intense and subdued tones

Proportion

Unity
3. Review and classification of color with bolts of ribbon
4. Color harmonies—Monochromatic, analogous, contrasting.

Studied in connection with dress, house, counter
5. Harmonies continued.

Class mount illustrations

II. Design—

6. Designs
7. Rhythm, balance, unity
 - A. Card-board figures used for motives and arranged for surface, border, center.
 - B. Illustration with all kinds of materials.
8. Picture versus pattern
9. Illustration of No. 8 with all kinds of material

Class work: Drawing of plant form and adaptation as motive for design.
10. Counter Display

Unity

Character goods

Color scheme

Arrangement

Central point of interest

Balance

Rhythm
11. Costume —Application of principles

Dressing models
12. Test

EXAMINATION IN COLOR AND DESIGN

(Illustrate by the arrangement of your examination paper a well balanced arrangement, and the value of margins.)

1. Describe the colors 1, 2, 3, 4, 5, in as many ways as you can.
 2. Illustrate with your crayons a scale of color, marking the tints, shades, and the standard or "full intensity."
 3. What color harmony is illustrated by A? B? C? D? Which is most pleasing to you, and why?
 4. Describe as fully as you can lines and styles becoming to the following figures:
 - (a) Tall, narrow-chested, slender.
 - (b) Short and stout.
 - (c) How should sloping shoulders be treated?
 5. What colors are becoming to:
 - (a) A brunette with pale complexion
 - (b) A brunette with red cheeks.
 - (c) A pure blonde
 - (d) A person with red hair.
 6. Describe the design of E, F, G, H, in as many ways as you can.
 7. Explain the statement that "decoration is art controlled by common sense," by comparing:
 - (a) 2 pincushions K and L
 - (b) 2 inkwells O and P
 - (c) 2 clocks R and S
 8. Discuss the two rooms X and Y with reference to:
 - (a) Color scheme
 - (b) Arrangement
 - (c) Design of furniture and other articles
 - (d) Harmony
 - (e) Simplicity
 - (f) Suitability
- Which room should you prefer to live in, and why?
9. Tell any ways in which the study of color and design has helped you:
 - (a) With your customers
 - (b) At home
 - (c) In your own purchases.

COLOR AND DESIGN EXAMINATION.

1. Name each of the colors, A, B, C, D, E, and discuss their intensity and value.
2. What color harmonies are represented in F, G, H, I?
3. With the crayons, represent a *subdued color*, a *tint*, a *shade*, a *neutral*, an *intermediate hue*.

4. Discuss the design of J; the color and design of K and L and M.
5. What principles explained in the lecture on show-case and window display, have you been able to apply in your own department?
6. On the principle of the *adaptation of form to use*, discuss the design of the two pincushions, P and R, and the two clocks, S and T. On the common-sense basis, give your opinion of any two of the other objects on the table.
7. Discuss the two rooms, X and Y as to:
 - Color harmony
 - Unity
 - Design
 - Restfulness and comfort
 - Care required in dusting, etc.
 In which room should you prefer to live?
8. What did you gain from the visit to the Art Museum?

DISCUSSION

Miss Cushing: What is the relation between the stores and the school in the work you are doing, Mrs. Prince? Is the work required in this class you speak of?

Mrs. Prince: No; these girls are selected by the superintendents at the stores and they used to send us poor material; one of them asked me once if I realized that they sent me girls that wouldn't be missed from the store. Of course I had realized it, but it gave me a good chance to see what training would do for them. Now we have that group and use it as a practice school for training these teachers. There is a great demand for these teachers. This store that Miss Fitch speaks of has one of our teachers. Of course every teacher is told to connect immediately with the people in her city in doing this work, and Miss Fitch finds the greatest co-operation between these teachers and the stores. There is a great deal of material to be found in every large department store.

A member: Just about what proportion of technical practice do you require from these young ladies in studying material from the store? How much work do you find necessary in order that they may develop this appreciation?

Mrs. Prince: They come for fifteen hours a week to the school and we give two hours to this work. Usually one hour is given to discussion, or to the presentation of some new principle, and the second hour to some sort of expression by them. I wish we had a great deal more time, but it is difficult, or was difficult at first to keep it there at all. Now, I don't think anybody would be willing to let go of it. The employers see how much has been done.

PRINCE

A member: Do the stores bear the expense?

Mrs. Prince: The stores send the girls and they receive the same wage as if they were in the store. These stores also make large contributions to the Woman's Industrial Union. Of course now, the Simmons College bears the expense of the training course and the Boston public schools, for the last two years, have borne the expense of the director in giving the girls the practice. We have had splendid co-operation there.

A member: Does your school, or does any other school that you know of, train salesmen who visit homes and introduce new ideas in art?

Mrs. Prince: Indirectly only, in this way: We have now about fifty-five pupils, most of whom are in charge of department stores in the position of educational director. They come to us with either a college or a normal training, and sometimes experience in teaching, and one of the things they do is to see that there is somebody in the so-called art department who can do that. Several of the stores have people connected with the educational department who are doing that; not the teacher herself, but somebody who has had shop training in that end of it. I think that has been done more and more. You see the teachers in this particular work have an opportunity to use their influence on various sides of the merchants, not only in the service end, but in the operating end as well.

HOME PLANNING: ITS ARTISTIC AND ECONOMIC FEATURES IN THE PUBLIC SCHOOL

ESTELLE PEEL IZOR

I would like to say before I begin my own subject something in regard to Mrs. Prince's work. We have in our city one of Mrs. Prince's students, who is conducting a class in one of our best department stores. This winter it has been my good fortune to have had some work teaching design, in materials and textiles in that department store class, and I have gone through the materials in that store, including all kinds of wearing apparel, dresses, all kinds of materials, laces, silks, everything, and I haven't found any bad designs. That shows the influence that her work is having in the stores. It has been one of the greatest pleasures to find a store in which there were no bad designs in dresses and nothing offensive in design or colors in any of the wearing apparel. I wanted to tell you this because of my actual experience.

In a meeting animated by such serious purposes as is the Western Drawing and Manual Training Association, no subject deserves a larger place than does Home Planning. This is strikingly brought home to us when we reflect that men and women have subjected themselves to sacrifices and endurances and have undergone all forms of mental and manual labor in order that they might realize in a degree at least, the fulfillment of some cherished ideal of a home. The home is the vital center of all life's activities. Its mission is to teach the value of the ideal and to cultivate the heart. Its influence is the most enduring that can be brought into the life of a being, whether for good or for evil. No problem in life requires a higher grade of intelligence in management, selection, and arrangement, or a broader sympathy and understanding of every phase of industry and art than do those involved in the establishment of a home.

To what degree art has influenced the life and character of people is a matter for recapitulation. All people in times past have used the great principles of art and have elevated or abused and degraded them. The inherent desire for the aesthetic manifests in one of two ways: either in sensational desire for acquisitions and accumulations of things, ornate or diverting and often ugly; or in the desire for constant association with and appreciation of things excellent and beautiful which constitute sources of enduring satisfaction. Lack of well-established standards, and a power to appreciate the beautiful is largely responsible for the economic waste in

the production of useless and ugly furnishings that find their way into our homes.

Home making is a profession, and needs the training for a profession. The home-maker has to deal with the artistic merit, invention and ingenuity of industrial and commercial products, and should take her responsibility as a consumer with the same earnestness and seriousness with which the man takes his as a producer. The home-maker faces the same problems that the man-of-affairs faces in his business,—that of the estimation of cost, qualities and values, both artistic and economic, and the relation of expenditure to income. The ethical, artistic, and economic success of a household depends as much upon the care and intelligence in spending the income as it does upon the earning. There can be no question of the need of giving students knowledge and skill in the successful selection and management of the home, for these students are soon to select the food, the clothing, and furnishings as well as the fine arts for the home, every phase of which should minister to the highest welfare of the family.

Since we cannot enter the homes of our students with impunity, and since no school board could furnish yearly the necessary funds for the building and furnishing of a home, we must seek other methods of presenting the principles of artistic and economic home-planning. An imaginary problem may be made so practical as to lie well within the range of ordinary experience, and may be developed in every way in which an actual one is developed. A limited sum of money may be allotted to each student with which to purchase a vacant lot and build and furnish a modest home, with the stipulation that the house must be beautiful and harmonious in appearance and arrangement, and that the finished product must be free from all debt. The problem which confronts the student is how to secure the greatest amount of beauty and convenience with the least expenditure.

These are the requirements: there must be beauty in common and familiar things as well as in the fine arts, and artistic merit in the arrangement of all furnishings; there must be a systematic study of principles of good construction and production of furniture and floor coverings; and beauty in color harmonies. Students must keep itemized accounts of all expenditures, including cost of lot, building and furnishing. They must determine the question of salary necessary for the maintenance of the chosen investment and make budgets indicating the distribution of the income, worked out, not from statistics, but from the actual experience in their own families. In every possible way the student is to be brought face to face with actually existing vital problems of daily life in its most intimate relation.

The sum stipulated should be limited for two reasons: first, the average person seldom has more than \$5,000 to spend upon such an investment;

and second, while it requires no particular amount of intelligence to spend money, as the over-abundance and noisy self-assertion of some furnishings testify, to spend a small amount wisely and discriminately requires a marked degree of knowledge of what constitutes beauty in line, form, color and design as well as of quality in every material used.

Nothing will more surely improve good citizenship than owning a home. From the moment that the student begins the actual search for a desirable location he manifests a greater self-respect and self-reliance, recognizing clearly and definitely what things will be detrimental or beneficial to the community in which he expects to live. Poor streets, poor sewage, poor lighting systems, present and future neighbors, and proximity to saloons may make slight difference, to a transient dweller, but to this possible purchaser with the enthusiasm of youth, environment is of utmost importance. He investigates the kind of legal guarantee that the city or township offers as to the quality, style and value of buildings permitted on adjacent land; the water supply; the nature of soil and its influence upon health and vegetation; transportation facilities; and accessibility of school, church, and other cultural influences. He interviews the real estate man and land owner, and is alert to the fluctuation of market values. So thoroughly are students alive to the various phases of their problem that they have been known to make remarks like, "Do you remember that lot I bought two years ago? The street cars and street improvements have been carried past it, and it is worth \$500 more today than when I bought it."

The actual plans and elevation of the house are so intimately connected that they can scarcely be treated independently. If beauty and economy are to be found in the home, the exterior must be a direct and straightforward outcome of internal requirements. The qualities which make for economy will add to artistic appearance. Simplicity, good use of structural lines, the pitch of the roof, and the pleasing grouping of windows and doors which produce good proportions—these are the qualities which create beauty without adding to the expenditure. It is a mistaken idea that crude and ugly dwellings are necessarily less expensive than those of artistic character. Picturesqueness comes in large measure thro simplicity of line, the careful distribution of windows, doors and chimneys, and the absence of ornamentation. If the proportion and main lines are bad, no amount of applied ornament will hide the excessive ugliness of design. If decoration is used, though it may be safely omitted, it must rise directly out of construction. The student learns to apply these principles to the many illustrations of houses which he finds in books, magazines and photographs and ultimately to the design of his own house, which he works out on paper.

The things which will influence the choice of the site are as variable as are the lives of the builders. Whatever the choice be, whether a modest

residence in the outskirts of the city, an accessible country produce farm, an income property, or a double or a small shop in which the owner maintains a residence and yet receives a small return upon his investment, the student makes careful drawings of his house as it shall appear when completed in its chosen setting.

The fascinating problem of making floor plans calls for foresight and a thorough understanding of the requirements of the everyday life of the family which is to live in the house. The convenience of a house in which mistress and maid are one depends upon compactness, which is essential for heating purposes and for economy in construction, and upon the avoidance of awkward or cramped arrangements. Every foot of space must be assigned to a use which can not be so well served by any other apportionment. The judicious placing of partitions, and stairways, the concentrating of flues, the doing away with all needless passages, the skillful and economic arrangement of rooms and thoroughfares for convenience and comfort, all require the student's deepest thought.

When once the vision of the possible beauty of the structure is seen by the student, through the working out of the sketch of his house and his floor plans, his love and enthusiasm for his new home are unbounded. His days and nights are full of dreams, pictures and imaginings, which unlike most youthful dreams, he *knows* to be possible of ultimate realization. To the teacher it is just the beginning of a movement for the beautification of the home, a movement in which the school is bound to play an increasingly important part in the diffusion of beauty through the accessories of every day life.

Before the student begins the real problem of applying the knowledge of principles governing good taste in the arrangement of a home, he prepares the wood which is to be used in each room of his house. No part of the modern inexpensive home is more abused than the wood-trim. Not infrequently one finds all the natural beauty of the grain lost in an overdose of stain, paint, varnish or shellac. By repeated experiments in staining, each student learns the advantage and disadvantages of oil, water, spirit or acid stains, and paints, fillers and finishes.

The student is now face to face with another vital problem in home planning. He is to choose the furniture, the wall and floor coverings, the decorations and all the furnishings for the entire home. He is to learn the commercial as well as the artistic value of all the common and familiar things that go into the home. He is to plan for the dignity and unity of the house, if it is to have character and individuality. He is to provide for the use of the rooms, and for the comforts, the occupations and the varying tastes of the different members of his family. He is to learn that simplicity is not poverty, but the very

foundation of beauty and refinement; that "beauty is the most useful" and should be the commonest, not the costliest, of experiences.

Now, the great principle which underlies all expression of beauty is good spacing. It is the balance of unequal proportions which gives a sense of equilibrium without equal divisions. It is the fine relation of lines, masses, and colors. It is the subordination of forms and colors to a dominant idea so that they mutually enrich and enhance each other. These fundamental elements underlie the good spacing of any art, whether that relates to painting, to sculpture, to architecture, or to the four walls of a room.

Since the problem with the student is that of securing the greatest amount of beauty and convenience with the least actual expenditure, it is imperative that he learn the laws governing good taste and the basic principles of beauty. Four essential elements are to be considered in the arrangement of a room: (1) the center of interest, (2) the arrangement of the furniture, (3) the balance of pictures with empty wall spaces, and (4) harmonious color. The first step in the achievement of a room embodying these principles is an effort by each student to place on paper the ideas he means to express.

The drawing of wall-elevations for each room gives ample opportunity to apply the principles of good spacing in the arranging of furniture, in the hanging of pictures upon the wall, and in placing the ornaments upon the mantel or book case. It is a distinct lesson in design, and calls for sensitiveness to fine proportions and balance in forms and color. Without the right understanding and application of these principles no amount of costly or rare furnishing will make a room beautiful. It is not money but mind which produces good taste. Good taste can be expressed only by the application of laws of balance, proportion, intelligent selection, and harmony.

In order that the student may choose his furniture intelligently, he should study the history of furniture, not that he may fill his home with period furniture, but that he may have a better understanding of what constitutes good line and proportion; of what constitutes solid, honest, direct construction; of the adaptability of wood and its finish; of the value of recurring lines which give enrichment, variety, and unity in design, and of the breadth and simplicity of design which is an outgrowth of structural lines. In similar manner, oriental and domestic rugs and carpets should be studied in the class room. The purpose and durability having first been considered, the quality of the wool, the character of the weave, the color, and the design are studied from examples of all kinds of weaves, which are willingly lent by merchants. The knowledge of pictures is gained by actual association with paintings, etchings, color-prints, and carbon and color reproduc-

tions of old and modern masters. Local artists and picture dealers are always willing to contribute liberally by sending large exhibits of excellent examples to the classrooms. This study includes the knowledge of proper framing. Pottery, chinaware, and silver may be studied in the same manner, and the stereopticon may be used to illustrate various kinds of furniture, and good and bad arrangements of interiors.

That the student may have more practical experience in arranging a room, a collection of furniture, pictures, casts, rugs, books, and pottery may be placed in the classroom. Each student should be given an opportunity to arrange a wall beautifully in accordance with the laws of balance, good spacing and harmony. The result may then be criticized and discussed by the class, and necessary changes in arrangement may be made. If the student has a working knowledge of the laws of balance and proportion, it will express itself in a straight forward orderly way. He must learn that rooms must always serve as backgrounds or settings for the drama of life. When he permits the articles of furniture to dominate a room and its occupant, he has violated every law of good taste. He must have rooms from which one gets with a single comprehensive glance, a thrill of joy and a sense of beauty, for rooms once well arranged will always be beautiful, and therefore fit to be homes in fullest sense of the word.

The beauty of a room depends largely upon the fascinating problem of color combinations, the harmonious juxtaposition of colors, and the methods and ways of contrasting color. Color includes pictures, furniture, rugs, draperies, walls, wood-work, and everything in the room. The effect of a room may be cheerful or sad, pleasing or repellant, according to the quality and force of the colors employed. If these are not balanced in the same big way that we balance contrasting form, the scheme will be marred. It is skillful manipulation of tone contrasts in harmony, even the judicious opposition of tones, that produces the greatest harmonies.

In his joyous effort to procure beautiful and convenient household surroundings, the student now begins his visits of investigation to merchants for the purpose of choosing the thousand common things of daily life. He makes repeated visits to the different dealers in furniture, in pictures, in domestic and oriental rugs, in wall-papers and draperies, in table and bed linens, in china ware and pottery, and in kitchen utensils. The student is unsparing in his endeavor to choose materials, utensils and furniture, the quality, usefulness and beauty of which determine their fitness. And I may add that all merchants that they have approached have given generously of their time and advice. Each student keeps a carefully itemized account of each supposed purchase that goes into the house. Two things only is he permitted to carry from the old house into the new,—his piano

and his books. He finds thro his study that no furniture is too simple for use providing that the lines and construction are unimpeachable. He finds the limited sum allotted him a stimulus rather than a detriment, often bringing into expression a creative activity to be achieved by no other means. So closely identical to the real problem, is this, that students enter into it with an enthusiasm and joy that would delight the heart of a real homemaker.

Placing himself in the position of his father, the student considers the question of salary necessary for the maintenance of such property. Can he maintain such an investment on a salary ranging from \$800 to \$1500? What are the actual living expenses for one year of a family of five with such an income? Under two heads, living expenses and pleasures, each student works out from the actual experiences of his family a division of salary for one year. Food, fuel, clothing, light, water, street assessments, carfare, laundry, medical attention, insurance and taxes are some of the inevitable items of living expense. Books, travel, and amusements are the items usually included under the head of pleasure. These latter items are necessarily small, as the student usually finds to his surprise and disappointment. In the many accounts of maintenance presented by students, only a few have omitted savings, and no one provided for continuous hired service. Students also work out itemized accounts for food and clothing for the entire family for one year. The student bases his information upon the actual experience of his own family, and sometimes gains it through the combined effort of his community, for his enthusiasm often causes him to draw upon the experience of the entire neighborhood. One unforeseen outcome of the course is the drawing together of parents and children, enabling the latter to appreciate the difficulties their elders are encountering and the sacrifices they are making, with the result that even immature boys and girls are changed from dissatisfied critics of their parents into sympathetic assistants. The student has gone beyond mere representation in this concrete expression of his ideals. Whatever the outcome for him in the future, his mind is aroused and his imagination quickened to the true usefulness of art. No student who goes thro a course of this sort conscientiously and sympathetically can fail to become a better home-maker and a better citizen.

DISCUSSION.

A member: In what year in the public schools would you put this work of which you have spoken

Miss Izor: It comes in the high school course at the beginning of the third year.

A member: Should that be given to the boys and girls the same?

Miss Izor: Yes, it is given to the boys and girls.

A member: What teacher teaches it, the art teacher or the domestic science?

The chairman: Miss Izor is an art teacher, but if you want to call her a domestic science teacher she will not object.

A member: How long a course have you?

Miss Izor: At the present time, it extends over one semester. Hereafter it will cover three and be enrolled with the architectural course. We have two periods a day every day in the term. The enthusiasm often causes the student to work considerably over time.

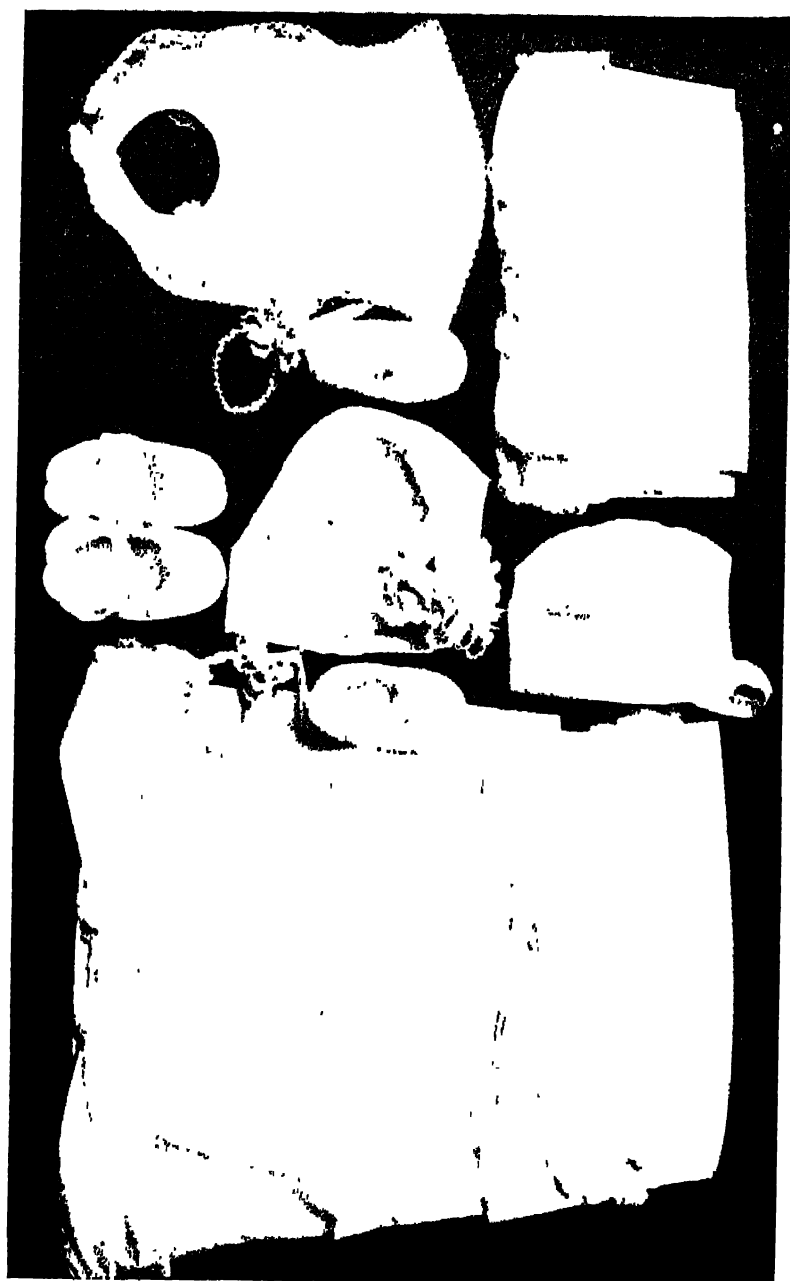
Miss McArthur: To get the children interested in the problems of their parents, it is not really necessary to wait until the third year in the high school. In the public schools of Chicago I have tried this question of economy in the seventh grade, and I know of no subject that arouses more interest among the children. They were intensely interested in this problem of expenditure and of economy, and have probably been critics in the matter of home expenditure. We find it really vital and interesting work, that which we worked out in the seventh grade. One item was how to use an income of \$1200 in a family of five, including one small child. The children worked it out on the questions of food, shelter and clothing. I left it to them to add the charity, savings and the church, and I found it was one of the most interesting things we ever did.

Miss Goldsworthy: A course of study that is being planned for the State of Michigan for eighth grade work through the year revolves around this question of the household arts. The children go to the stores and gather up information, and they do it with great interest.

Miss Izor: Then there are no end of books that make sketches of every article that they have chosen, with the cost. Our town is not of such a size but that I may know what is in each store. I do know very well what each store has and in that way I can keep track of the work of the children. It is an easy thing when they bring in their sketches of the materials which they have chosen.

A member: I would like to ask Miss Izor if there is an art pre-requisite for this work? I know much work of this kind has been done by domestic science teachers without an art pre-requisite. Has your course an art pre-requisite, and how much?

Miss Izor: Yes, two years; four semesters. A pupil before he comes into my course must have had at least two years art in the high schools before he is prepared with the fundamental principles.



ART IN THE HOME

FRED H. DANIELS,
Director of Drawing, Newton, Massachusetts

Ladies and Gentlemen,—I assure you that when I read your letter of invitation to come here to speak at this time and place, I had an immediate and perfectly natural reaction. I said to myself, "No, I will not go. Of course I will not go. It would be absurd. It would be presumptuous to think of going." But I had been to your meetings before and their memory was so delightful,—that I came again.

It has occurred to me, several times, however, since I have been here, that my first reaction was a very wise one; my trepidation has been increasing day by day, as I have viewed your exhibits and have heard your program.

Your exhibits certainly are astonishingly good; some of them are wonderfully good, better than I had imagined possible at this stage of the development of manual training and art education. They show evidences of seeking after the right thing. We are more conservative where I came from. A man on the East coast said to me recently, "I haven't changed my course a single jot for thirty years, I am teaching exactly the same thing now that I did thirty years ago"—and he was way behind thirty years ago! We have people there who have not had a new idea in manual training or drawing since the time Rahotep was chauffeur for Ramses II. Possibly you have that same conservative kind here in some places, but they are not present in the exhibits.

Your program has been a source of delight, a great help and inspiration.

After I had accepted your very kind invitation, it gradually occurred to me that I had already spoken upon this subject before this Association. I had entirely forgotten it. But you may have heard that as one gets old the memory returns to the things that happened in his youth—of course you don't know that yet. I remember now that way back at the joint meeting of the Eastern and Western Association. I think it was in the year 1843, I spoke on this same subject. As I gradually became conscious of this fact, I remembered some of the details, I recalled that Mr. Perry, now of Pratt Institute, was there. He was a boy in knickerbockers at the time, and came with his parents.

You may think it is rather an extraordinary and unusual subject for a man to speak upon, as we all have the feeling that the matter of house

furnishing is in the hands of the women. The prerogative of the man in the home is two-fold, he has the privilege of paying the bills for all the furniture that his wife may purchase; secondly, he acts as a moving van to push the furniture around from place to place in the house. It actually happened in a New England town not long ago that a visitor said to the man of the house: "Pliny, I think you have moved the piano since I was here." The host replied, "Yes, we have had it every place in the house except the coal bin, and I expect to put it there next." He made no remonstrance, he recognized that his wife was the housekeeper.

There are two things that militate against successful house furnishing, which I want to touch upon before showing the slides. The first is this: We have given or we have left to us things that we do not care to keep in the house, except for reasons of sentiment. We know, on the other hand, that these heirlooms, these things that are full of sentiment and affection, are really the things that make the home dear to us; and so there is this constant conflict between the things that have been given us and the things we ought to have. We have doilies fearfully worked out in strong violet and green on white, and all sorts of things for table runners. We have pillows with horse's heads, and Indian heads, and high schools painted on them. We know nobody cares to sleep on a horse's head or the high school steps. We have given us copies of Gibson, fearfully Fletcherized in pen and ink. Most everybody has something of that kind in the home.

The second reason is this, some people imagine that house furnishing is simply a knack. We say, Mrs. Blank has a knack for furnishing her home. We wouldn't say: Mrs. Blank has a knack for music, because we know that music is an art to be learned through hard study and practice. We ought also to know that house furnishing is an art to be learned, although perhaps one can't learn much about it from books. If we enter a room and a feeling of satisfaction or pleasure comes over us, let us study the room. A man entered an artist's studio, sat down in front of the fire and said: "Do you know I would like to take my shoes off here." He felt at home. A woman entered the same room a little later, and she said: "I feel as if I had a chocolate cream in my mouth every time I enter this room." Both were expressing their delight with the room. When we enter a room that gives us that kind of sensation, we should study it to see why it is so satisfactory.

I know of a man who entered another room—this is an absolutely true story of a man, an artist, whom you know by reputation. He was obliged to wait a while for his host. He sat down and looked about the room. The carpet was of strong color, with sofa cushions still more striking in color; the hangings were of one color and the wall paper another, and all were showy. This artist was sensitive to color, and he became very fidgety. Soon

after the host came down stairs, the visitor apologized and went home. He could not remember what he came for. When we have experience with such rooms, let us study them until we are sure we know why they are bad.

Victor Hugo says: "Homes are like the people who live in them," and we know that "Art is revelation of self." With the aid of the illustrations to be thrown upon the screen we may see how true are both these quotations.

(About sixty lantern slides were used to illustrate the lecture. The report which follows is necessarily incomplete and fragmentary.)

All scientific progress is based upon an understanding of the laws of nature. It is equally true, though less understood, that all successful results in the field of art may be traced back to nature and a knowledge of her ways of doing things. Hence we may safely conform with nature's laws of design. Because for thousands and perhaps hundreds of thousands of years man has been in constant contact with nature, he has an instinctive sense that things which agree with nature in her general laws and manifestations must be right, and that those things which contradict nature are wrong. "Nature is Divine Art," said Plato, and believing as we do that nature is at least the best art we have, we may base our home furnishing upon her laws of furnishing. For our purpose tonight, three will suffice,—Order, Fitness to Purpose and Simplicity. Perhaps you will choose others for your own home or school conditions.

The largest room in the house should be the living room. It should have a generous fireplace, the "heart" of the home. Windows are best arranged in groups as in schools and art museums, that the light may be concentrated so as to permit adequate lighting of pictures, casts and other furnishings. The piazza should be placed where it may serve as an outdoor living room, private rather than public. If the woodwork in the house is beautiful, it may be enjoyed to the best advantage if painted white, that the modelling may show as with plaster casts. If the wood finish is the usual, ordinary type, it is better to stain it in middle value tones of quiet color, that it may be a part of an unobtrusive background.

Light wall paper makes a room appear larger, and dark paper causes it to appear smaller. Red, orange and yellow are the warm colors; green, blue and violet are the cool colors. When a room receives little or no sunlight let us introduce a suggestion of warmth through the use of warm colors upon the walls, and *vice versa*. The floor should appear darkest, the walls of middle value, and the ceiling the lightest; this is nature's scheme. Green and brown are the restful colors because we are most accustomed to them in nature; therefore, they irritate the eye nerves less than others. Such colors should be used in the rooms in which we spend considerable time, as the living room, or the study. Red is the color of love and hearty

good-fellowship; it is the most stimulating of colors, and may well appear in halls and dining rooms where we desire welcome and good cheer to dominate. Above all things, we must recognize the fact that walls and floors are backgrounds. They must always be quiet in pattern and color, never assertive, if we desire things to maintain their proper relations in the home. A wall covering which is more interesting than the hostess is a calamity. "For want of the consideration of things in their proper order, all the world is in confusion." The wall is a conventional thing, it must have a conventional treatment; that is, if a figured wall paper is used, the design must be conventionalized rather than naturalistic, for flowers and fruits will not grow upon a plaster wall. A room as a whole, like a gown, should have one color dominant. When we consider the continued satisfaction with regard to color and design, texture and wearing quality, the Oriental rug is the cheapest rug we can buy, although through imitation the domestic rug of today is making remarkable progress towards excellence.

Window curtains should repeat in lighter values and more cheerful colors the general room color. They should be hung upon rings and reach to the window sill only. Sunlight is the best of nature's germicides, let us open the way for sunshine to enter. Portieres should be hung upon rings that they may be moved easily in service, and here again, the room color should be repeated in richer tones.

The old, old houses with their simple furnishings are a delight to thousands who willingly pay a small fee to see them. In these days of strenuous living, we welcome the opportunity to thus partially realize our half-conscious ideal,—the simple life. The modern Craftsman movement is a return to simpler things, a reaction from the fretful furnishings of 1880-1900. Antique furniture is in much demand for the same reason. If we are so fortunate as to possess a few antiques, they should be placed together in one room to form a consistent group.

With regard to the dining room, let us place our rugs where they may be walked upon, instead of under the table where they serve as a crumb tray. Our dining room will be furnished in better taste, if we modestly shelve our china behind thin curtains, rather than attempt a garish display.

The bedrooms should suggest light, air and immaculate cleanliness. The woodwork should be white or nearly so, and the wall coverings and the furnishings in delicate values and colors, cheerful and clean in their suggestion.

A single picture, or a group of pictures should repeat the shape of the wall space upon which they are hung, and each picture should be hung with two vertical wires which repeat the vertical lines all about the room. It is our own home which we are furnishing, let us reflect our personality

in our choice of pictures. If we are timid, retiring, quiet, possibly bashful, our pictures should be the echo of our own peculiar characteristics,—gentle, rather than bold and vigorous. If we are fond of nature, or of animals, or children, our walls may show the manner of man we are. We should be careful to select good pictures of whatever variety we may choose, if we are not sure, we may safely take the consensus of opinion from those who have made a study of such things.

If casts are hung upon the walls, they are best placed against plaster or brick backgrounds, where the texture of cast and background may in part agree. Choose carefully the place in the room where the lighting shows the modeling of the cast to the best advantage.

Finally, the longer we live in our homes the more we realize the truth of the old quotation, "Whoso creates a home, creates a potent spirit, which in turn cloth fashion him that fashioned."

THE WEAKEST LINK

ROBERT J. LEONARD

PROFESSOR AND DIRECTOR VOCATIONAL EDUCATION
INDIANA UNIVERSITY, BLOOMINGTON, IND.

Twenty years ago the great forests of the Pacific northwest remained practically untouched, because of the lack of facilities for transporting the logs and lumber to the centers of population along the Pacific. The great "tooth picks" 150 or 200 ft. long were too cumbersome to be carried on flat cars even when cut into several sections.

Finally a group of Seattle lumbermen conceived the idea of lashing the logs together into rafts and towing the rafts from Elliott Bay down the Sound into the Pacific and thence to San Francisco. After many experimental efforts the method was declared a success and preparations were made to construct and convey a great fleet of rafts composed of thousands of logs from Seattle to San Francisco.

One by one the rafts were made, huge cradles being formed by driving piles into the stream, and then carefully packed with well fitting logs. Chains and cables were wrapped securely about the logs and the rafts floated to mid-stream. Twelve were finished and joined by huge cables. The fleet started on its trip, being towed by six tugs. All went well for several days, despite the rough sea, but along the southern coast of Oregon a storm arose, dashing the fleet about like empty boats and one by one the huge rafts were pounded to pieces by the waves and the currents and tide to be picked up as drift wood all along the coast.

Upon investigation it was found that the cables had parted in many places but that the chains were unbroken.

Into a small middle western town years before had come a chainmaker who settled there and built a rude factory installing several forges, "Dolly Hammers" and anvils, and commenced making chains. The quality of his chains attracted attention for they were never known to break. His business grew by leaps and bounds and his make was always specified where great strength was necessary. The chains which so successfully withstood the storm and stress were made in his factory.

In the early days this iron master employed but three or four men, all expert chain makers. As his business grew, however, and as new methods were introduced modifying the hand process, the proud group of chain makers represented but a small fraction of the large force, as semi-skilled men and boys were employed in great numbers in the factory.

Though the chains are still noted for their strength, the plant now employs scores of young men and boys and illiterate foreigners who receive less than a living wage and who never learn a trade, for there is no trade to learn. They never know when some change in the factory, a period of industrial depression, or some new invention will make them a part of the great army of the unemployed and unemployable which now numbers hundreds of thousands. This forms the weakest link in the wonderful industry built up by the iron master.

The chain is no stronger than its weakest link and an industry is no more socially worth while than its weakest phase, and the weakest phase of modern industry today concerns the human element. An industry to be justifiable must minister to the health, spiritual, moral and economic welfare of all concerned: the workers; the consumers; and the manufacturers or the capitalists whose money is invested in the business. Most industries today, except those relating to the manufacturing of firearms, ammunition, etc., liquor and tobacco, directly minister in a large way to the welfare of the consumers and the manufacturer and in a small way to the welfare of the worker. Herein lies the weakest link.

The great majority of boys and girls upon leaving school and going to work enter an industrial situation and life of which they know little or nothing. They know relatively more about the materials of industry and industrial processes than industrial life, for the products of industry have been an organic part of their environment, and the materials of industry have been handled in the schools.

At the present time, there is an honest difference of opinion regarding specific technical vocational education in the public schools for many pursuits, but can there be any difference regarding the obligations of teachers and the schools in attempting to provide children with the necessary background so as to enable them to ultimately understand industrial life and all that it means?

Some contend that the technical phases of wage earning may be best learned in the shop or factory, but the industrial situation can never be interpreted without the background of industrial history and biography and industrial evolution, which to reach the masses, must be taught in the schools.

Among our membership are teachers of industrial subjects, teachers of fine arts and home economics. The courses of study which we now administer in the various schools which we represent and the exhibits at this meeting show conclusively that we, like manufacturers, are more interested in production, quantitative and qualitative production, than in the human problems involved.

At present it seems that we prefer to teach our boys and girls to

make a portfolio by a laborious hand process, disregarding all relation that this bears to case making in bookbinding, than to use modern methods that are typical of industry, thus forming a basis for an industrial study which should follow.

Herein lies the weakest aspect of our work, for pupils may successfully complete all phases of our present courses and learn relatively little or nothing concerning modern production and the problems incident thereto.

Nearly all of our present courses are based upon either the disciplinary or the art craft approach, and even though we desired to attempt to introduce our pupils to the productive life about them, the whole viewpoint and purpose of present courses becomes the first and initial obstacle. How can a course based upon the disciplinary theory be useful in interpreting modern life?

By the disciplinary approach, I mean that which assumes the mind to be made up of a number of faculties and that general skill may be developed by specific training. This approach has given rise to the joint and exercise method in woodwork, and to the notion that we must work from the parts to the whole, from the simple to the complex, from the easy to the difficult, and above all it has placed the emphasis on process and method and general training, rather than on product and specific training and an understanding of the situation. In sewing, it is responsible for the stitch exercises, and in art for the so-called scientific method of teaching color, whereby pupils first learn all the various colors and combinations and then attempt to mix them and later use them in painting. In mechanical drawing it is responsible for the introductory exercises, line and angle drills, etc., on the basis that one cannot make a drawing until all the problems involved have first been mastered. This approach, though outgrown in many other subjects, is the greatest obstacle today in the modernizing of all the industrial arts work in our schools.

The arts and crafts approach is more attractive, bringing forth an instinctively favorable reaction to the aesthetic sense, but is no more satisfactory as a basis of introduction to modern life than the disciplinary approach. Finding its basis in the philosophy of Ruskin, Morris and others in their fight against machine production, brought about by the Industrial Revolution, the arts and crafts approach teaches that the essential element in production is design, that the designer should be the craftsman and the craftsman the designer, that hand methods should not be replaced by machine methods and that the important thing is the beautiful and useful product rather than the processes involved and the general resultant training derived.

This approach justifies our courses in basketry, yarn weaving, bookbinding, paper and cardboard construction, art metal and much of the woodwork, sewing and other related courses found in our schools today.

To attempt to introduce children to modern life by such means is absurd and such courses, though valuable as applied art, must soon give way to the modern industrial methods of production.

The main purpose of the industrial and related courses in the schools today must be to introduce children to the life of the time. If we fail to do this, we are assisting in industrial exploitation and we are contributing to human waste, for ignorance of the modern situation is the best means of perpetuating it.

A new industrial day must dawn. If we are to develop a democracy new industrial ideals must dominate. But new standards in industry will never become operative without the rank and file, the workers themselves, have the basic knowledge and training concerning the whole situation necessary to indicate how to point the way toward the path of progress. The fight for reasonable hours of work, for a living wage, for the elimination of child labor, for workmen's compensation and insurance, for guarding human life from occupational diseases and hazards, would have been won long ago if the workers themselves had received the vision of a new industrial era in the public schools.

When we speak of workers we mean women as well as men, girls as well as boys, for, taking the country as a whole, about one-half of all women between the ages of 16 and 20 are working for wages, averaging those living in cities, towns and rural districts. In the cities the percentage is much higher, being about 65% in Chicago and other centers of population. About one-third of all women who work are engaged in industrial pursuits, one-third in some form of domestic service and the remainder divided among several groups of occupations. The greatest factor in all phases of the exploitation of women workers is ignorance of the situation in which they find themselves, and for such ignorance the schools are directly responsible.

As it is, young girls entering industry, though at first stunned by the busy whirl of the machines, soon become factory wise and, in a year or two, are a real part of the complicated mechanism and any effort to better conditions or change employment is apt to become impotent because of the inertia resulting from monotonous work and the indirect pressure of the system. Marriage releases some, fatigue others, others continue until eliminated by loss of speed and efficiency in declining years, while others remain through the normal working period of life.

How shall we attack our problem? First, we must rid ourselves of the traditional methods of approach to the industrial subjects. We must completely eliminate the disciplinary conception from our courses, and consider as applied art those phases of our work which have their foundations in the art craft method.

Agreeing that the controlling motive of our work must be to introduce our children to the life of the times, so that they will be able to completely

realize themselves as individuals, and so that making a living may minister to making a life, we must determine the various aspects or phases of this complicated situation. In the field of production the constituent elements may be grouped under three heads, namely: (1) the materials of production; (2) the process involved in production; and (3) the individuals engaged in production. The first two aspects, materials and processes, concern technical phases and the third, the people involved, social phases.

The project must, of course, be the approach for the industrial work, in order to form an experience on apperceptive basis. But projects must not be chosen from either the disciplinary or art craft standpoint. These principles should guide in the selection of the project. The material used should be limited to those commonly used in the primal industries. This would rule out "tilo matting," many yarns, fancy papers and other materials specially prepared by school supply houses for school use. The project should be typical of modern industry or capable of illustrating some phase of the primal industries. This would rule out spool weaving, paper weaving, knife work, paper and cardboard construction, etc. The process of construction should be similar to the modern industrial process or capable of illustrating the industrial process, and lastly the sum total of industrial experience should be broad enough to include practically all of the primal industries found in any community in which people live.

All this, however, concerns the side of production, and, as we are not manufacturers concerned only with output, but teachers dealing with human personalities, we must give a large share of the term allotted to our subjects to a consideration of the social phases involved.

For purposes of discussion these phases may be grouped as follows:

I.—The conditions under which human efficiency in industry may be attained:

- 1.—Living wage, sufficient for
 - a. Food, shelter and clothing.
 - b. Education of children.
 - c. Amusement, church, charity, social life.
 - d. Residue for insurance, sickness and old age.
- 2.—Reasonable hours of labor.
- 3.—Healthful conditions under which labor is to be performed—Pure air, regulated to proper temperature and free from injurious dusts and gases. Dangerous machines properly guarded.
- 4.—Machines regulated to normal human organism.
- 5.—Relation of the particular process to the whole.
- 6.—Provision for leisure time.
- 7.—Relation of work to community.

II.—Factors in various industries tending to prevent human efficiency.

1.—Type dangers.

- a. Indoor occupations more dangerous than outdoor.
- b. Exposure to irritating dusts, metallic, mineral, animal and vegetable.
- c. Exposure to infectious dust—rags, papers and wool industries.
- d. Exposure to poisonous gases—lead, arsenic, etc.
- e. Industrial accidents.
- f. Tenement industries.
- g. Fire hazard.

III.—Individual factors conditioning efficiency.

- 1.—Age—problems of child labor.
- 2.—Sex—women in industry.
- 3.—Maturity—health and temperament.
- 4.—Education.

IV.—Community relationships and problems growing out of industrial life.

- 1.—Characteristics of classes and class feeling resulting from industry leading to formation of:
 - a.—Trade unions—American Federation of Labor and I. W. W.
 - b. Manufacturers' alliances, etc.
- 2.—Mediating agencies between the classes.
 - a. National.
 - (1) U. S. Railroad Wage Rate Board.
 - (2) U. S. Department for Labor and Commerce.
 - (3) National Civic Federation.
 - b. State.
 - (1) Minimum Wage Boards.
 - (2) State Departments of Labor.
- 3.—Dependent individuals and families due to conditions under which labor is performed and methods of preventing such community loss.
 - a. Consumers League.
 - b. Industrial Insurance.
 - c. Employers and Workers Liability Acts.
 - d. Measures to regulate Tenement Industries.
 - e. Measures requiring machines to be properly guarded.
 - f. Factory Construction Acts.

V.—Industrial History.

VI.—Industrial Biography.

VII.—Potential opportunities for service through industry.

Without adequate attention to the aspects of industrial life enumerated, young people will continue to enter in increasing numbers an industrial situation of which they are ignorant, and such entrance will still be characterized by waste and inefficiency. The burden of attempting to carry out this program rests upon us. We cannot shift it to the teachers of so-called academic subjects or class room teachers, for if we do, the teaching will lack that vital touch connection with project work which is absolutely essential.

The carrying out of such a program presupposes that we are thoroughly acquainted with industrial life. It may be, however, that we are not prepared at the present to properly cope with the situation. Teachers in increasing numbers, however, are becoming prepared for this advanced step by supplementing their professional training and teaching experience with a period of industrial employment, social service, industrial study or survey work, or some other form of activity designed to familiarize them with the situation as it actually exists.

The greatest opportunity for rendering the highest service to the coming generation is ours. We cannot fail for the consequences of such failure are too great and far reaching.

DISCUSSION

Mr. Leavitt: I would not want to do anything to dispel the lesson that we have had from Mr. Leonard, and I agree heartily with everything he said.

If I had only thirty minutes in which to do something along the line of industrial education, I should want to take fifteen to do some of the things which he has suggested here. I was reminded, however, of another story in the Bible, when Mr. Leonard spoke of Lazarus. I think you will all remember the case of the certain rich man who had large flocks and herds and who, on one occasion, was put to the necessity of entertaining a guest, but he forbore to take an animal from his own flock, and he took a little lamb belonging to one of his tenants. He gave orders that it should be brought up early for the entertainment of his guests. It seems to me Mr. Leonard ought to go back and talk to the State Board of Education of the State of Indiana. He said from thirty minutes to three hours. Three hours is pretty liberal time for this important thing we are trying to do, that is, liberal according to the State Board of Education of Indiana. A boy cannot graduate in Indiana from the high school unless he has certain marks in Latin. Why should he take from the thirty minutes that we have, or the three hours in which we have something much more important to give to this boy than the teaching of Latin, technical grammar and a whole lot of other truck that we have in our traditional school courses?

Why shouldn't he go up to that State Board—composed of university people pretty much—why shouldn't he go to them and tell them it is their business, first of all, to take up this work.

Mr. Leonard: Perhaps I have gone to the State Board.

Mr. Leavitt: I said probably you had, and I hope you will go back and do it better, and do it stronger; certainly he has not done it effectively yet. I know it is a hard job. I don't suppose all of us together could do much to educate that State Board of Education. I think very probably the only thing we can do is to wait for some of them to die. There was one member of that Board who said—he wrote it in a letter when this matter of advancing industrial education was up—in effect, “this matter of industrial education will probably be thoroughly threshed out, but until that time we better keep all the good old things that a hundred years of tradition have shown us to be good. Until the advocates of industrial education have shown us this thing, we can afford to wait.” That is the whole story—“can we afford to wait.” But how about these children, this 50 per cent who have got to be wage-workers who can barely get into the high school down there. I found one man who didn't know that a boy could be a pupil in the high school, but could not get his diploma without he has two years of Latin. He said: “I am going to do what I can to save that waste of time.”

I quite agree with everything Mr. Leonard has suggested, but I want to put that one suggestion, instead of robbing us of the thirty minutes we have, we better take a little out of the grammar and other kinds of stuff that are put up to the pupils.

Mr. Bennett: The chairman told us that Mr. Leonard would make us think, and he certainly has done so. I want to ask a question which to me is a very important one of late, and I think that he can probably answer it for us, because of what he has said already. That question is: How do you interpret the words “modern industry” as he has given them in the second and third of the propositions made here. As I understand it, he would say that in training for vocation we should use projects and processes of modern industry. Now, that leaves us in just about as bad shape as we were before. That term “modern industry” may mean one thing in one kind of a community and quite another thing in another kind of a community. Does he mean a factory system of modern industry, and is he willing to take that attitude, that we should use the processes and projects of the factory to the exclusion of the smaller industries? I do not know the exact proportion, but I suppose only a comparatively small fraction of the amount of work of the State of Illinois and all the States around us,—indeed, you may take the United States as a whole,—only a small portion of that work is done under a factory system. There is a great deal of industry that the school should recognize that may or may not be in-

terpreted by him as being modern industry, and that to me is a very important question, because upon that hinges a good many of the things that we should put in the course for vocational education.

Just another thought in that connection. I was talking with a man very recently who has large responsibilities in connection with the employment of men in the East. He was telling me something about the strenuousness and the bad conditions that he saw in the modern factory system. He said, In describing one factory, that is not in the East but is in the Middle West, he told me: "In that factory they are turning out with a twenty-ton press enormous numbers of these pans that go under automobiles. Conditions are not ordinary conditions prevailing in a factory, where, when you are ready, you press the lever with your foot and the plunger would come down and press out the metal into the shape you want. Not so in this factory. That plunger is timed by the factory authorities to come down every forty-five seconds and the men who are working there have got to have things ready for that plunger to come down." He said: "I stood there and watched the thing going for a few minutes, and I asked the man: "What happens if one of these men doesn't get out of there when that thing comes down?" The reply was: "We take him to the morgue."

I wouldn't have you think that that is the spirit of modern industry entirely, but that was the answer of one man in one factory. Now then, the intense nervous tension of those eight men working upon that machine to do their work, to pull up their corner at just the right instant to have the piece out in time, and to get the sheet in, that intense nervous strain is what kills those men in that factory—if they don't get killed by the other method.

Of course Dr. Leonard would say he cannot countenance such an extreme case. I want to show that there is an extreme side of this question of modern factory industry which the school cannot and does not wish to help, so what I want to know from Mr. Leonard is this: "How he interprets that term "modern industry."

The farmer in the South, who is perfectly satisfied to raise a bale of cotton on the one hand and the man in this manufacturing establishment that times his machine to forty-five seconds, perhaps represent the two extremes.

The chairman: I will ask the Vice President to take the chair long enough to allow me to speak on this subject and to give one thought that has occurred to me in this same connection. I have waited to ask Mr. Leonard this question, because we have had discussions before. Mr. Leonard said at one time in regard to sewing in the schools that we taught the children in the schools to sew up the seam of the sleeve and then the seam of the waist, and finally put the sleeve into the waist, and he said that

was incorrect, as a preparation for the industries, because in the industries they sewed up the seam of the waist and the seam of the sleeve together. Pardon me, here is my jacket. How am I going to do this in that shape? Where can I go with my machine? Moreover, a tailor doesn't work by machine at all. We can't do it the same in every case. It seems to me that the question is at least allied to the question before us, and that is why I have asked this question in connection with the one asked by Mr. Bennett.

Mr. Leonard: I am not sure whether the gentleman raised a question or a controversy. A commission at the present time has been appointed by the State Board of Education of Indiana to re-organize the requirements for admission to the high schools. Indiana has taken that advance step, Illinois has not.

Mr. Leavitt: Illinois doesn't need to, because it hasn't any such foolish requirement.

Mr. Leonard: The State Legislature in session at Springfield yesterday killed all of the various bills which represented matters affecting in almost any view the state-wide problem of vocational education. I would suggest that the one raising the controversy appear before this Legislature and state some possible way of putting vocational education on the map in the State of Illinois.

Mr. Henderson: If I understand it correctly, he did.

Mr. Leonard: Perhaps that is the trouble. Regarding Mr. Bennett's question, which I think is a very serious question, modern industry cannot be advocated in the abstract, it becomes a particular problem in a particular industry. Modern industry though does stand for two types of things. It stands, first, for specialization of work, a particular individual at a particular thing, and it stands, second, for repetition.

Now, to, interpret that as a definite school industrial proposition in that particular way would perhaps be unfortunate, but there is that great difference between modern industry and between the handcraft method of production. We are following the handcraft method wherein one individual follows the complete process—all very thorough, never repeats. If one individual in our school were to make taberets, we would attempt to claim that he doesn't know how to make a taberet until he has made at least two. Then the element of specialization must be introduced. That doesn't mean one boy shall make all the tops of the taberets, but he must make a pair of tops, he must pass from one part to another until he gets familiar with the whole thing. The truth of the situation is that modern industry is changing, whole trades are being broken up into trades and sections of trades. What we find to-day is different tomorrow. The spirit of the school is conservatism. We must so organize our procedure that we can carry into our work not such equipment as we think will

do for fifty years, or within our lifetime, we must keep up with the spirit of modern times.

Concerning Miss Fitch's illustration, which she so graphically made—I spoke of the manufacture of shirt waists, not referring to the manufacture of tailormade, high class garments. The great bulk of our girls; who are in clothing industries, are not tailors. That is the highest type—probably a man tailored that garment, but the great bulk of the girls in the clothing industries are engaged in making different types altogether, and there we must copy many of these forms of modern production, and thus revolutionize some of the handcraft processes by which mothers still continue to make their garments at home. We must introduce, say, the machine with electric power in our schools, because they are being used in the factories and in the homes. A very small percentage of the tailors are manufacturing the type of garment exhibited.

Miss Gilmore: I would like to enter this controversy, though I do not hail from Indiana or Illinois, but from Wisconsin, where you admit we are more liberal. The architect in planning the foundation of a building, plans for the structure which he has in mind. He may plan the foundation for three or four stories, the height he is expecting to build at present, but with the idea that he may add more stories later on.

It seems to me that we who are training boys and girls cannot definitely plan for a certain structure because we do not know what that building is going to be, and so we ought to plan a foundation that will admit of as many stories as the law will allow. In planning for girls, over and over employers of girls have come to me and said—and these employers have power machines in their factories,—“If you will train the girls to be responsive, to be accurate, to use foot power machines, it will not take us more than a day or a week to train them into our shop work.”

Mr. Buxton: I agree very heartily that the speaker has given us a word of inspiration. That matter of instruction, apart from the work, is undoubtedly under-emphasized. On the other hand, with Mr. Bennett, it does seem to me to be a mistake for us to throw over our hand process, giving all our time to the repeat process specially. It would be as foolish not to do the detail work as to do too much of it.

Another thing: As to the joint or exercise pieces upon the one hand, and the arts and crafts method on the other. The workman in the shop has not been through with those processes, but that does not mean that the school should not do it. The fact that a man has learned one way in industry does not mean that the school should not copy the result. The school doesn't need to train the boy by the unfinished methods of the

shop. If that is the best and quickest way of getting acquainted with a definite piece of technical skill, that is the sort of thing to do, and if the point of emphasis upon the art product is a good thing, why, the arts and crafts product is the best way to do that sort of thing. It does seem to me that we have some place for individual study of processes and design and application, as well as the opportunity for specialization and repeat product. But the specialization and repeat product must be very carefully selected, and only given in minor doses in our school work.

Mr. Leavitt: Certain questions are raised about the advisability of going down to Springfield and doing something. I did go down to Springfield Monday night, with two or three other gentlemen from Chicago, and I think it was partly as a result of that business that the Legislature failed to pass a certain obnoxious bill which was likely to create a dual system of education in Illinois. It was better to kill that bill than to pass any other bill, for the simple reason that the laws of Illinois permit any school in the State or town to do anything in the sacred name of education. The only object in passing this bill was to get money with which to do it. In the State of Illinois any school can do anything that it can get the money to do with, and the permission of the local school board.

Right here in the City of Chicago there are more apprentices receiving instruction in the public schools on a broad high basis than there are in the whole State of Wisconsin. That is a fact that was brought out last Wednesday, the fact that there are only four hundred and fifty apprentices in the whole State of Wisconsin that are receiving instruction under that law, while there are something like five hundred right here in the City of Chicago receiving such instruction.

Mr. Leonard: There are more apprentices in Chicago than in the whole State of Wisconsin.

Mr. Leavitt: I am only speaking of this to show that we can do things without this law that was suggested and that it is merely a question of doing the thing, not to take the heart out of our industrial arts program. There are in one school three hundred boys, they are getting instruction in industrial and social hygiene, the pure food law and all the rest of these things that have been mentioned. One boy said, "I know every garbage can in our alley." They are studying those things, they are making reports to the city government and they are doing it, not out of a thirty minutes a week given to manual training, but they are doing it out of a thirty hours a week that are given to a complete, adequate preparatory education.

THURSDAY MAY 6th—GENERAL SESSION.

President: We have with us three gentlemen who are not on the program but who have messages for us. I have asked them to speak to us at this time. They are Mr. Bennett, Dr. Babcock and Mr. Perry.

MR. CHARLES BENNETT

BRADLEY POLYTECHNIC INSTITUTE, PEORIA, ILL.

At our meeting last year in Milwaukee I had the pleasure of meeting a group of about twenty-five for conference with reference to the International Art Course. At that time, of course, we supposed that a congress would be held at Paris in 1916.

Since that time some good work has been done, by some of those members in assisting us in our efforts to secure legislation which would give us an appropriation. But that and other matters have been brought to a standstill owing to the war in Europe.

There are a few things, however, that it seems to me should be reported to you in regard to the matter.

The first is that our committee representing the Central section of the country has been organized, a committee of twenty-five, the committee having been enlarged from the number I gave you last year, fifteen, to twenty-five. We have selected as chairman Miss Church of Chicago, and we have induced people to serve on that committee who represent the larger interests of art and handicraft in this section of the country, including directors of museums, the heads of art schools, some of the leading architects and some of the leading artists, as well as a number of teachers. So we feel that we have a well balanced and a representative committee from this section of the country.

But that is about all that we have been able to accomplish, except to write letters. Mr. Farnum, the chairman of the American committee, has written letters to Germany, to Switzerland and France, but he has not received replies. There is good reason why, and there are no immediate plans with reference to the International Art Congress.

There is, however, something else going on that is interesting, and has been receiving the attention of the International committee, namely, an art educational day at the exposition in San Francisco. There are co-

operating to support this day of art discussion the American committee of the International Art Congress, the American Federation of Arts, the committee which you have selected and of which Prof. Leavitt is the chairman, and also a committee from an Eastern Association.

The hope is to get together at San Francisco, for one day, the people who are interested in the development of art education and handicraft in the schools and to have an unusually good discussion. Already there are on this program, which is in charge of Mr. Harshe, our Western representative, speakers to cover not only this country, but several from abroad, so we may look for a feast on that occasion.

Another point in connection with this is the fact that the Bureau of University Travel, which has done such excellent service in helping us on previous occasions to get to the Art Congresses, and who have been named this year as the official guides has planned an art tour to this meeting in San Francisco. The representative of that Bureau, Dr. Babcock, of Boston, who is vice president of the Bureau, is here, and will be willing to tell us a few of the plans that are made for our comfort and our pleasure and I think you will be glad to listen to him at this time for a minute or two, and he can tell you better than I can what is planned.

Just one word in closing: There are large plans made for the next congress. The American committee has a great many plans that they are thinking about, but of course this war is making it impossible to take any steps forward, except plan a little among ourselves.

I want to say for the benefit of a part of this audience, namely the people interested in manual training and vocational work, that it is the intention of the chairman of the American committee, Mr. Farnum, to make the constructive work an important feature of the next International Art Congress, so that not merely the teachers of drawing, but the teachers of manual training as well, may look upon it as *our* congress.

DR. C. L. BABCOCK

BUREAU OF UNIVERSITY TRAVEL, BOSTON, MASS.

I am too keenly conscious of the value of every moment of your time to take any unnecessary moments here. I am going to have the pleasure of being with you throughout the week and shall be only too glad to see as many of you individually as care to ask questions or details.

In the first place, I wonder if your experience is like mine. I am not very enthusiastic about exhibits, I am a little exhibit weary, but every one who comes back from San Francisco says we must go. Even those who are disinclined to get mixed up with anything more of that sort would better go to San Francisco if they can possibly arrange it. Those who have been there tell us it is worth while. It is worth while, especially to be there in August, because we shall have not only the one Art Education Day, but special interests will be continued into the next day. The whole period from the 16th of August to the end of the month is given up to educational interests, which are more or less vitally connected with your particular field. This is the time to be there.

It is possible, however, that many of you for reasons of your own, must choose some other time, or must take not quite so much time as this plan calls for.

We plan to take you out there in July and still connect you with the Art Education Day, if you like, because you can remain there without any extra expense. We can plan to bring you back after about three weeks out there, reducing the amount of time and money that is necessary for the trip. In other words, let us know what your needs are and I think we can show you how you can combine with this Art Education Day all the opportunities which the Exposition affords, and at the same time, make them fit into any plans which you may have of your own.

THE CHAIRMAN:—We all know that there are other art associations in the world besides the Western Drawing & Manual Training Association, but sometimes we almost forget it. There is one that is to meet next week in Washington, the American Federation of Arts. Mr. Walter Scott Perry was one of the organizers of that association, and I should like very much to have Mr. Perry tell us something of the meeting which is to be held next week in Washington, and then to tell us of a new organization of which he has been made director, the Art Alliance of America.

WALTER SCOTT PERRY,
PRATT INSTITUTE, BROOKLYN, N. Y.

Ladies and Gentlemen, I received word a few days ago asking if I would make an announcement at this meeting concerning these two organizations. I will speak of the Art Alliance of America first.

This organization is only a little over six months old and I will read just a few words from one of the circulars.

"The Art Alliance is an association of workers in art and users of art in all branches, working toward a single end."

Then after further statements we have this:

"We have an army of workers in the various fields of Art whose efforts are purely individual. In many cases the story is simply a repetition of vocational misdirection of efforts in unprofitable fields, of time wasted through lack of knowledge and experience. In a word, there is a great economic loss through lack of special ability or wrongly directed talent, or failure to learn technical requirements, or imperfect knowledge of the needs of many different fields for the work of artists, illustrators and designers.

"The Art Alliance of America has been formed to meet these wants. It purposes to furnish practical advice regarding the work of the members, and to encourage real talent in reaching possible rewards and to counsel those whose efforts are misapplied. Through its wide connections, the Art Alliance will simplify the ways and means by which good work can reach its market in the most direct way. This organization will save much time and effort for producer and consumer. It proposes also by its directions to raise standards, and to place art in a position where it will not only inspire, but will produce practical results.

"The Art Alliance of America has, therefore, been formed by a group of New York men and women interested in art and in industrial betterment, and in the subject of vocational training, who realize the necessity for a central organization in the interests of art workers.

The objects as set forth in the constitution are:

"1. To promote co-operation between artists, art students, artisans, publishers, manufacturers, advertisers and all others who are engaged in artistic activities.

"2. With the assistance of experts to aid, direct and advise art students, artisans and artists in their studies and pursuits.

"3. To provide a general registry for artists, art students, artisans and employers.

"4. To provide a department of information.

"5. To hold exhibitions.

"6. To publish information relating to the objects of the Alliance."

The directors are some thirty in number and include sculptors, painters, craftsmen, art-editors and others, among them Mrs. Ripley Hitchcock, the founder of the Art Workers' Club for Women, Mr. Herbert Adams, the first president of the National Association and one of our chief sculptors, Mr. Herman A. MacNeil, Mr. Arthur W. Dow, Mr. Albert Herter, and so on through a list of some thirty.

I was asked if I would give some report of what has been accomplished by this organization. We realize that we have a difficult task. It is an entirely new field. I will read from a report which has just been given me by the president of this organization.

"This organization of art workers and business men, who deal in artistic work, has demonstrated its usefulness as a clearing house for art products.

"During the past six months about one thousand art workers and art users have consulted the Alliance personally, in addition to an extensive correspondence. The classification shows one hundred and forty-four subject heads of art works and a hundred and twenty-two of art users. There are now one hundred and two active members and eighty-four associate members, many of whom have accepted the privilege of exhibiting their work. Those applying for membership, but not qualifying, have received advice.

"Commissions have been secured for members for wall paper designs, book binding, boxes, costumes, scenes for a children's theatre, signs, minor work in sculpture, and one painting has been sold for \$500. A large commission for stained glass windows is pending. The Alliance has charged no commissions.

"At this time, when conditions have enforced the necessity of self-development in America, the Art Alliance has a great opportunity for usefulness. The Alliance believes that 'Made in America' must stand, not merely for quantity, but for quality. What we make in America must be sound in principle, based on good designs and executed with insight and knowledge. It must bear the test of comparison and competition.

"We realize the pressure upon us all in these times, but we maintain that it is a matter of duty, as well as advantage, to make the most of the opportunity now offered to American art work.

"As the demands upon the Alliance have increased, the expenses have grown. The Alliance, like the Metropolitan Museum of Art, and similar

institutions, is dependent upon donations and membership fees. The amount of \$6,000 is needed for the next fiscal year."

The directors have given a great deal of time to this organization. They recognize, as the unthinking do not, that art consists of much more than painting, sculpture and architecture, and that it is something that should be very closely associated with utilities. The work of the artist and of the artisan must be more closely allied than in the past. It is the purpose of the Art Alliance to promote close co-operation between these individuals as well as between publishers, manufacturers and other employers in various industrial lines.

I will now speak of the American Federation of Arts and of the program of next week. You will pardon me for speaking of this with a good deal of pride. Only in 1909 Mr. Frank Millet, that splendid type of man and artist who went down in the Titanic disaster—for whom and one other a memorial has been located in Washington—he, four others and myself met in a room in Washington, in February. We discussed the matter very fully as to whether we could form an organization such as this and held the first meeting in May of that year. That was a success. Last year the meeting was held here in this hall. Other meetings have been held in Washington since the organization in 1909 and the convention held that year. The basis of organization was "Team-work" and its development has been through co-operation. As a clearing house, it prevents much duplication of effort and also makes more effectual each movement promulgated for the advancement of art. Its membership is made up of both individuals and organizations, the latter styled "Chapters." Annual dues of Chapters, \$10; associate members, \$2.00, which entitles the member to receive every month that splendid magazine called *Art and Progress*. We sincerely hope there may be some here who will desire to become members.

The educational work has been along four lines. It has sent out exhibits of paintings and other works of art of high standard; circulated type written lectures on the fine and applied arts, accompanied by illustrative stereopticon slides; published the monthly magazine, "*Art and Progress*," which is especially purposed for the general reader; and issued the "*American Art Annual*," which is the standard book of reference for art in the United States.

That is the result in these five or six years. We have now Chapters all over the United States, representing forty States, two hundred Chapters. We are sending out at the present time twenty-one classified exhibits of paintings, crafts and all kinds of art work, and every Chapter can have the benefit of any number of these exhibits through the year by simply paying their part of the transportation expenses. The exhibits on the road this year are insured, I think, at about \$400,000, so you can realize

PERRY

their value. We believe we have done a great work in these five or six years.

The meeting next week is to have one of the best programs that I have yet seen an art educational meeting. It begins on Wednesday morning, the 12th: Mr. Hutchinson of Chicago is the vice-president of the American Federation of Art, and Mr. Carpenter is treasurer. The meeting lasts for three days. On Wednesday the general topic is Art Education, and we have such speakers as Miss Cecilia Beaux, Mr. Herbert Adams and Lloyd Warren.

On Thursday morning, the general subject is Art Education in the Public Schools, four papers being presented. On Thursday afternoon, Art Education in the Colleges and Universities, four papers being presented, with discussion.

On Friday morning Industrial Art Education, five papers presented, and on Friday evening a banquet in which the general subject again is Industrial Art.

Now, there may be some here who would like to become associate members of this organization; if so, we would like to hear from them and have them attend the convention. I will leave these programs here for you to look at.

I have presented these statements in response to the request of your officers that I make known to you what we are trying to do in the two organizations, the Art Alliance of America and the American Federation of Arts.

Department Round Tables

ART.—Chairman, LUCY S. SILKE, Supervisor Art, Chicago Elementary Schools.

MANUAL TRAINING.—Chairman, FRED V. CANN, Lakeside Press School of Printing, Chicago, Ill.

HOUSEHOLD ARTS.—Chairman, WINIFRED FRYE, Milwaukee-Downer College, Milwaukee, Wis.

VOCATIONAL TRAINING.—Chairman, R. C. WOOLMAN, Supervisor Manual Training, Des Moines, Iowa.

ART ROUND TABLE

CHAIRMAN, LUCY S. SILKE

THE CHAIRMAN: I am not going to take up very much of your time in opening this Art Round Table, simply to say that in the selection of the speakers, we have endeavored to keep in mind the big subject which heads our program, Co-operation in Educational Problems, a subject which you know is big and which I feel that the first part of our convention program has made even larger and more important in our minds than it was before.

ON THE TEACHING OF LETTERING.

ERNST F. DETTNER

CHICAGO NORMAL COLLEGE

The things to be said about the teaching of lettering are perhaps the answers to two questions. The first: What is good lettering? The second: How is it to be done?

To be good, lettering must have two qualities, readableness and beauty. And the most important of these is readableness. These virtues must be evident in both the forms of the letters and in their arrangement. To be readable the letters must be of the familiar kind in everyday use. They cannot be designed simply, because that has already been done. The alphabet, which is a traditional code, must be accepted and learned and used.

The letter forms most in use at present in books, newspapers, advertisements, documents, and the like, are: Roman Capitals, Roman small-letters, italics, script, block-letter, Old English, and many incomplete and improper forms. Of these the most used, and probably therefore the most readable, are Roman Capitals, Roman small-letters, and italics. For good lettering it is necessary to use these kinds of letters in their finest form. From all available alphabets the ones must be selected which are most legible and most beautiful. Of Roman Capitals, designers have agreed that the finest forms are those in the classic Roman inscriptions of the first and second centuries A. D. Probably the best of these are the letters in the inscription of the Column of Trojan at Rome. These letters were

	<u>FORMAL-WRITING</u>	
A.D.		
1-500	SQVARE CAPS	I
1-500	RUSTIC CAPITALS	II
400-800	UNCIALS	III
	<u>CURSIVE-WRITING</u>	
1-500	CURSIVE	
	becomes	
	[H·H H h h h · h]	
400-800	half uncials	IV
800-1200	small roman	V
1200 {	Gothic	VI
1400 }	Gothic	VII
1400	small roman	VIII
1400	Italics	IX
	<u>BOOKHANDS · A.D. 1 to 1450 ±</u>	X

Figure 1.

carved about A. D. 114. From the classic capitals by a gradual development came all of the other alphabets we use. For example, H became h, (Figure 1). By the tenth century the roman small-letters had acquired their present form. The best examples of this alphabet to study are the letters in the books of the tenth and eleventh centuries. Italic letters, as the name indicates, were developed in Italy. They are of the time of the Renaissance and were perhaps at their best about the year 1500 A. D. Lettering will be good if the letter-forms are based on these fine historic examples.

The arrangement of the letters must also have readableness and beauty. The simplest arrangement is usually easiest to read. The adjusting of the space between letters, words, and lines must be carefully studied. Beauty may be achieved in the pattern of strokes and background spaces—a pattern which must be fine in its lines, forms, spaces, values, and colors. In this too, a study of historic examples of the best periods will be of great help.

Here, then, is an answer to the first question: What is good lettering? It is to use the finest forms of the Roman Capital, the Roman small-letter, and the italic, based on historic examples of proven legibility and beauty. It is to arrange these forms simply and to make a fine pattern with them.

How is good lettering done? Letters are made usually in one of three ways: by printing with type; by writing with a pen; by inscribing them, that is drawing them and afterwards finishing them with another tool as in carving, painting, engraving, embroidery, and similar processes. The oldest and fundamental method is writing. It was this method and its tool, the pen, which developed the letters and gave them their characteristic shapes. Good lettering is either writing or writing adapted to other tools and processes. Printing types, which were invented about A. D. 1456, are simply written letter-forms adapted to being cast in metal and printed on paper by pressure. Letters in painted, carved, embroidered and other inscriptions are always written letter-forms adapted to the conditions which these processes impose. Lettering is therefore best taught as formal writing. By use of the pen a working knowledge of letter-forms can be acquired, because it was the pen which originally developed the letters. With this fundamental knowledge gotten through writing letters it is not difficult to make them by other means when that is necessary.

The second question may be answered thus: Good lettering is done by writing. Of the three alphabets suggested for study the classic Roman Capital may be considered the best with which to begin. It owes its qualities of readableness and beauty chiefly to the fact that the letters are finely proportioned in themselves and to each other. These various proportions of the letters, however, also cause difficulty in forming and spacing them. About one half of the letters are wide, being about square; the rest are narrow, being the height of a similar square and one-

ART ROUND TABLE

half its width. These proportions should not be changed, because to change them is certain to make the letters less legible and less beautiful. A good way to teach the proportions and forms of the letters is to have these memorized by the pupils through making skeleton forms of the letters with pencil strokes, (Figure 2-a). This is direct and like writing. After the proportions of width in relation to height have been memorized, the class may be given broad-nibbed pens. These may be made from a reed, a piece of bamboo like the handle of a Japanese brush, if there is time to teach how the pen is cut. A good substitute where the reed is impracticable is a pen of steel, known as a round-writing pen. These pens may be bought at most art stores.

The chisel-shaped end of the broad pen makes a thin line in one direction and a wide one at right angles to the first. With this piece of wide chalk similar lines are made. If the Roman Capital skeleton forms be written with the broad pen quite a finished letter is produced, (Figure 2-b.) Such letters are easily made and with a little practice become quite uniform. Being made in a direct way they have a very desirable quality of life and vigor, which is lacking in letters which are over-carefully drawn out.

The roman small-letter is also written with the pen. The best models for study are the book-hands of the tenth and eleventh centuries. During King Alfred's reign in England in the tenth century there were two monasteries at Winchester, then the capital city, where very fine manuscript books were written. This is a modern hand based upon that writing, (Figure 2-c).

Italic is the roman small-letter changed by compressing and slightly sloping the letters, (Figure 2-d). Care must be taken not to make this writing heavy and angular, otherwise it develops into a "black-letter" writing which is related to "Old English" type. This tends to be illegible, (Figure 2-e).

Perhaps it will be of value to list the things which students beginning the study of lettering may profitably avoid, and those things which they ought to do.

Do not call lettering, "printing"—to print is to produce a form by pressure.

Do not use Old English letters—they are illegible.

Do not use block letters—they are an incomplete form of the Roman Capital, lacking the serifs or finishing strokes.

Do not use shaded letters—they destroy the feeling of the flatness of the page which is essential to good design.

Do not narrow or widen the Roman Capital letters—it destroys their legibility and beauty.

ROMAN CAPITALS
• SKELETON FORMS^(a)

ROMAN CAPITALS •
• PEN-MADE FORMS^(b)

Roman small
letter writing^(c)

Italic writing^(d)

Gothic This form tends to
be illegible and is
not a good one for beginners to
study and use^(e)

THE BROAD-
• NIBBED PEN

E.F.D.



Figure 2.

Do not arrange letters in vertical or oblique lines—it makes them hard to read.

Do not draw the outlines of letters with a pen and afterward fill them in with a brush—it destroys the life of the letters and is laborious.

Do use Roman Capitals, roman small-letters, italics—they are proved legible and beautiful.

Do keep the established proportions—they are essential to legibility and beauty.

Do *write* the letters—it makes them vigorous and alive.

In conclusion there will be a set of slides to illustrate the historical development of writing and the great influence of the pen in determining letter-forms.

Note:—In answer to the question as to what is the best book on lettering, I may say that without doubt it is "Writing and Illuminating, and Lettering," by Edward Johnston, Sixth Edition, The Macmillan Company. Mr. Johnston has also published through the same firm a set of plates as a supplement to his book. This portfolio is entitled, "Manuscript and Inscription Letters." A series of articles, "Pen Craft in School Work," by James Hall in The School Arts Book, Volume IX, April, September and December, 1909, gives a good simple statement of how formal writing may be taught in the school room.

—E. F. D.

SOME VITAL ELEMENTS IN THE NEW ART MOVEMENT

GEORGE SENSENEY

THE NEW SCHOOL OF DRAWING, PAINTING AND ETCHING, CHICAGO

In introducing Mr. Senseney, Miss Silke said:

When a reporter came to me the other day and wanted to know what was new and sensational in our program that would make a story, I couldn't think of anything that would startle him more than to tell him that I thought the work of the little children came nearest to the new school of painting, nearer than anything that he would see in the exhibits. I asked him to go down and look at the exhibit and see if he could not find some inspiration in the direct, clear way in which the children have objectified their images, as Mrs. Young would put it.

I think the art teachers have been at times like others, apt to get into a rut, to be afraid to do new things, to be afraid to open their hearts and minds to things that they have not themselves been taught how to do. But in working with children, it is easier for us to teach in a childlike attitude of mind so that we are ready to learn, and we need these fluid conditions, every year bringing us something new.

Mr. Senseney represents what he calls "The New School of Painting, Etching and Engraving." I think he probably thinks in his heart that it is the very oldest school of all, being founded on the fundamental principles of self-expression, directness of purpose. I wanted him particularly to talk to this group, because I felt that he had a message for us.

MR. SENSENEY: When Miss Silke asked me if I would speak before this Association, I hesitated a few seconds, just long enough to be credited with fine modesty, and said: "Yes, I will speak." "What will you speak on?" "I don't know exactly, almost anything." So when the program was printed, I found I was to speak on "Some Vital Elements in the New Art Movement," and I at least was pleased with my subject. She mentioned I was to speak at the Round Table, but I don't believe I would have been so much in a hurry to accept if I had known I was going to come out here in this formal kind of a way. I imagined somewhere in the back of my head that we were all to be seated, to smoke and have grape juice, perhaps; at least talk among ourselves as good fellows.

At any rate, I am going to talk to you about this New Movement in as friendly a way as I can; I hope I won't make any very special

enemies. I noticed when Miss Silke first mentioned the New Movement, people commenced to laugh; they thought of the cubists, or futurists, and you no doubt expected to have a rather amusing time. It is queer that when any one speaks of the modern movement, a great many people get the idea that this new movement in art is a sort of region of canvases which is bounded on the north by "the post impressionists," on the east by "the cubists," on the west by "the futurists" and on the south by the "jumping off place."

We are living now in an age that we at least consider very interesting, the most interesting age in the world's history. There is nothing very new about that remark, but it really is a very interesting age for an artist to live in, or for any one who wishes to make a study of art, because the artist today has brought to his very door good reproductions, at least, of the work of all times, and today we are in the midst of a movement which is destined, I think, to affect very vitally the art of the whole world. There never has been a time in the history of art when there was not some new movement and some new movement which had its vital elements. I have no doubt that Praxiteles and Phidias were considered to be in the "new movement" and the older Greek sculptors perhaps looked upon them as men who had violated existing traditions and were going to break down the art of Greece. No doubt there were innovators in Assyrian art and in Egyptian art. Right down to our time we have found that those men of originality who worked and thought out something new had to fight for their ideas, struggle to find acceptance for their thoughts and their work.

Rembrandt was an innovator; he belonged to the "New school." Titian and Raphael were also innovators. Raphael was looked upon by the older men like Leonardo da Vinci and Michael Angelo as an up-start student who was very fresh with color and form and ought to be driven out of town.

As we come down to our time, we find a new school established in France, when the Barbison men had to struggle for recognition to get their ideas and works accepted by the juries and public, and after they had obtained a hearing, the impressionists arrived and they had in their turn to struggle. Led by Monet and Manet, their ideas gradually affected the art of the world: they are today affecting it.

Then the "post impressionists" took up the movement where the impressionists left off, with Cezanne as their leader, with Gauguin, Van Gogh and the rest, and had their struggle. They in their turn were vilified in almost every way possible.

I think we may give to Rodin, the sculptor, a really great artist, what praise or blame there is due for starting what is today called the New Movement in Art. Many of you can remember when his statue of Balzac

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created the greatest interest among artists and public alike. Photographs of the statue were reproduced in the leading magazines and people talked for a time of nothing else. Men and women lectured on it and the question among artists and laymen alike was whether there was anything at all in this work of Rodin, this great piece of sculpture, which has since come to be recognized as one of the world's masterpieces. Rodin had many surprises in store for us. After he had completed the Balzac and had given to the world of art other astonishing works of sculpture, he gently shocked us with his drawings. They were drawings very freely made, almost like writing in graphic quality; they expressed the man's emotions and ideals, figures drawn with just one sweep of the pencil or the pen that he used, striving to express on paper at once and without correction or refinement some idea of the emotional action of the human figure without correction, and those drawings, I can assure you, are very astonishing at first sight. Now they seem to have lost much of their sting and to be very beautiful. They are generally acknowledged to be among the most vital drawings which were ever made. They are very simple in subject and treatment and are nearly always tinted. Rodin presented to the world of art, I think, the spectacle of a soul unafraid. He seems not afraid to attempt anything, and ever ready to defend his work if necessary.

The modern artist wishes, above all things, freedom, wishes to work unhampered by tradition, as almost all artists have been up to the present time. When a portrait painter painted, he painted very much like Sargeant or like Rembrandt, or he studied a Titian. When Sargeant was hung in the galleries ten or fifteen years ago, he always had the center of the main gallery. On remarking a painting by Sargeant at an exhibition today, one is apt to think "There is a Sargeant; just like all the rest." No portrait painter today can get very much credit if he paints very much more like Sargeant than Sargeant does himself.

Today the artist who wishes to receive the recognition of his fellows must be individual; that is the demand of the present. If an illustrator, he must forget all about Gibson and Christy and Henry Hutt and even the Leyendecker brothers. He may arrive at his end by working in broad values or by little dabs or smudges, but his influence is really felt and counts only when he sees as an individual and renders his idea in a new way.

Not long ago in an exhibition of paintings in Paris, I saw an old Frenchman who bore the earmarks or hairmarks of an artist, gesticulating wildly at the paintings and declaiming loudly "*C'est la mort de l'art*"—"It is the death of art, it is the finish of everything"; he seemed really to feel that way about it, while most of the people in the gallery were very much interested in the greater part of the exhibition. That is the way many of the older artists are apt to regard the product of the artists

with extreme modern tendency. It seems to me that an explanation or definition of the right attitude in which to look at pictures is not necessary for you people. In the first place, you are led to appreciate from the very beginning the vital importance of color and design.

The element of design in a work of art is the quality which demands the greatest amount of thought; it calls forth in the artist the highest intellectual activity. Color is more or less emotional, but should to a great extent conform to a scientific understanding of the principles which govern its action and effect on the eye.

These two elements in the new art movement have been common in every art movement, but today they take on a new significance because the artist is better equipped from the standpoint of knowledge and science. As he allows himself more latitude and freedom of expression, he employs color in its intensity, and seeking ever for new harmonies and combination that the old masters never dreamed of, he looks forward ardently to the day when pigments of greater luminosity and intensity will be discovered, in order that the eye may be stimulated as never before, when art will take on a new meaning and become a more vital part of every day life.

If we assume that the artist of today is better equipped than ever before and at least as intelligent as his predecessors and, I think, he is, we shall make the first step towards understanding and appreciating the new development in art. If we look on his productions as the work of an eccentric or madman and treat them with contempt, we cannot hope to gain anything from them.

The artist of today wishes to present some phase of nature which has been overlooked or ignored by his predecessors, or to create, it may be, something from the abstract that has no existence in nature in order to awaken new sensations to increase intellectual activity and consciousness.

Claude Monet may be said to have discovered color as we see it today. Before his time, if we except the primitives, the artist was content to play in a minor key, to paint with browns and reds and yellows relieved here and there with hues of attenuated color. Since his time we have learned to understand the power and beauty of blue in its intensity and are beginning to experiment with green.

Leon Bakst, the designer of the costumes and scenery for the "Russian Ballet" that we know has had a great influence on the new art development, had a use of color which has influenced greatly both interior decoration and fashions; we have but to look about us at the costumes we see on the street to see his influence which has brought to us joyous color combinations which would have been thought the height of vulgarity a decade ago.

The use of intense and brilliant color combinations and contrasts is common in the East and among the peasantry in many countries in Europe;

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in our country we have been largely content with "quiet" colors which we call "subtle," greyed colors so negative in value that we have been long in accepting the newer conceptions.

One might compare Americans with a person who had been living in a dimly lighted room—it is something of a shock to be brought out into the sunlight with its glorious scintillating color.

One is bound to confess that some of the "new art" is silly, just as was some of the "old art;" however, it is good to live in the present at any rate.

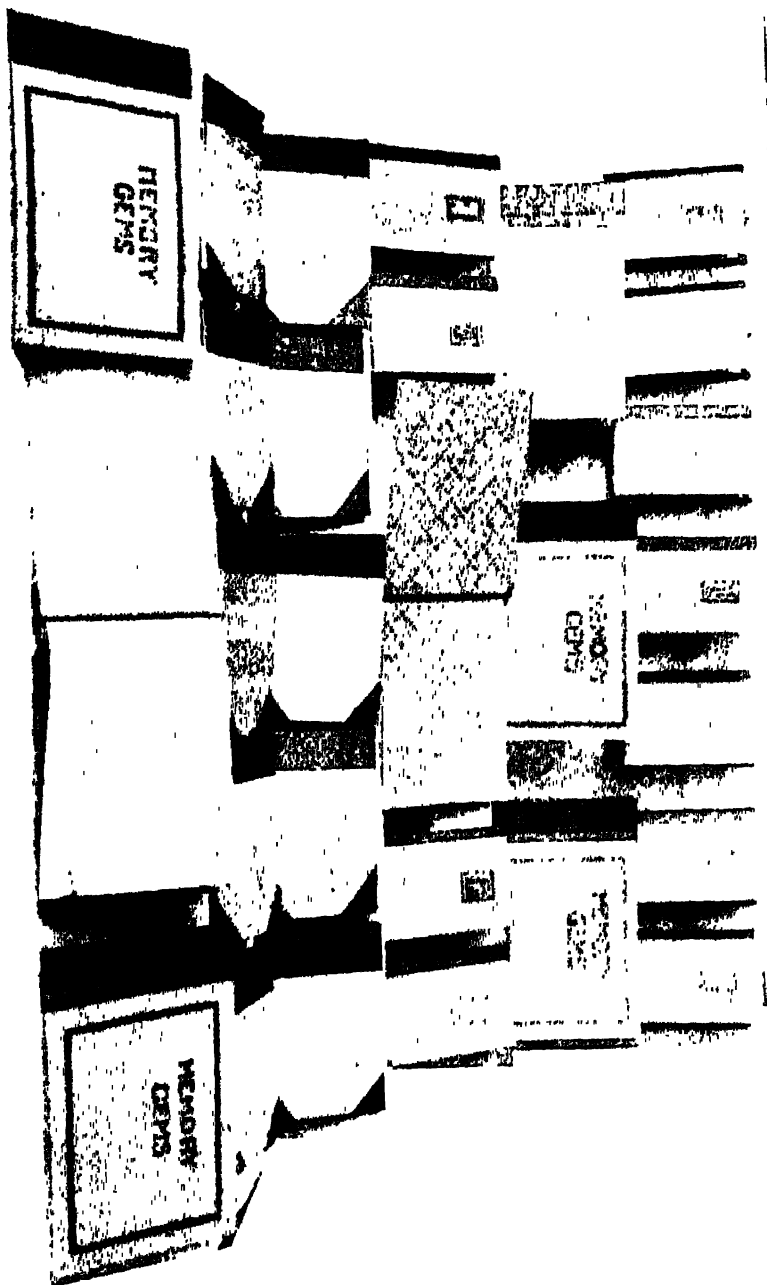
I regret that my time is limited, but, in conclusion, I would like to say that the new movement cannot be said to have a real leader, neither is it a school of painting with defined rules and a distinct manner of painting—it may be differentiated from the older schools by the attitude of mind of those in sympathy with it.

The keynote of the "New Art Movement" is freedom, and the best part of it is that it is a growing thing, and will be something different tomorrow.

You teachers of drawing and manual training have exerted a great influence already; in the future your influence will be greater than ever, because your instruction is becoming an established system and is reaching and educating the masses of our people. Thus it seems to me that good taste in decoration will some day become common in our country, and art will become a vital part of our everyday life.

Strive in every possible way to cultivate the open mind and you will find that the new development in art will add zest to the game you are playing—it will add much to the joy of living.

I thank you for your attention.



ART APPRECIATION IN THE GRADES.

MYRTLE M. IRONS

SUPERVISOR OF ART, ROCKFORD, ILL.

When our good chairman first wrote me concerning this subject she asked for a restatement of the fundamental principles that make for Art Appreciation.

Just at that particular time I felt, keenly, the pressure of the public mind for the tangible results of our work, that our parents, business men and school people might see what art was doing for our boys and girls.

I also realized how handicapped they were in their expression because of the limited amount of work in real drawing and lack of knowledge of color and form.

Possibly some of you have met similar conditions. If so, such a restatement, for such it must be, may be worth while.

Most public schools provide on their programs 75 to 90 min. per week for drawing and one hour or one and one half hours for hand work, household art or manual training. This averages about one tenth of the entire school time in which our boys and girls shall gain some power of appreciation and some intelligent ability in expression.

As before stated, the tendency is a demand for expression. Unless our young people have some knowledge of their surroundings and the experiences which give real appreciation, there can be no individual, original, vital expression.

What is Art Appreciation and what part of our allotted time shall be given to cultivating this most precious quality in our grades?

The general public acknowledge the value of drawing especially when it can serve some utilitarian purpose. A more complete understanding of the service of art to the child recognizes also the creative power as a divine gift, the natural endowment of every human soul, showing itself at first in the form we call appreciation. This appreciation leads a certain number to produce actual works of art, it may be beautiful architecture or only a leather card case, but it leads the majority to desire finer form, better harmony in surroundings and things of daily use. It is the individual's right to have full control of these powers. It is the Art teacher's duty to care for this phase of education as carefully as for the professional or industrial.

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All people in our modern civilization may be called consumers but few possess the natural ability to become producers. All will be called upon to make selections, to judge of form and color or to know what is good and why it is good.

They have a right then to training which will not have its final goal in the result upon paper but training which gives the power to control the senses, so that mind and hand will work together.

It is left to the drawing department to instill early into the minds of the boys and girls, our future citizens, a love of the beautiful in nature and art, a keen and accurate perception of the difference between the beautiful and ugly, a good knowledge of color harmony and the underlying principles of good design.

In considering the cultural aim of art education, three subdivisions are universally agreed upon, namely,—training in expression, in observation and in appreciation. It is just as true that art instruction should teach children to draw as that instruction in reading teaches children to recognize and form written words. Written language is expression, drawing is expression. Good drawing gives joy to the worker and to the observer. Beauty of form in design means good drawing,—good drawing does not come incidentally to many. It comes through persistent effort and often through good honest perspiration.

Whether the subject be a weed or flower, a common kitchen utensil or a beautiful pottery form, matters not, but the fact that the pupil draws, goes back, compares and draws again, expressing what he sees, not what we see, does matter. It gives him judgment, it gives him skill and ability to express himself and with this, the ability to perceive and enjoy beauty wherever beauty is manifested.

Keen and accurate observation, then, is fundamental to art and is an asset in the broadest sense. The effort to draw or to design leads directly to clear observation. Technical instruction is given as much with a view to developing appreciation of art as to creating proficiency. Art training aims to give some power of expression to all and to stimulate a gradual growth of the power to see and to feel pleasure in beautiful relations of form and color.

The work should be organized for steady growth in good judgment as to form, tone and color through all grades, high school and university. The main question at all stages is whether the art work of the school is making for appreciation and is giving to the individual the greatest possible encouragement to express self.

Supervisors generally agree that early education is the place to develop the imagination, to train color discrimination and to develop a sense of orderly arrangement and good proportion.

Our exhibits in the past have shown much time is given to imagina-

tive drawing, illustration of games and stories and to the use of color in representing nature and in simple decorative arrangements. The handwork seeks the same development through the use of clay, yarns, sand tables and any materials which respond readily to imaginative thought.

The projects should be such that the child feels the connection between them and his environment—they must be of some influence upon his home life or they are of little value. With these considerations this work of the primary grades may expand the power of the child mentally, manually, aesthetically and may give disciplinary strength.

The mental training aims to give power to invent, to see relations, to judge distances and to discriminate between sizes and lines.

Manual training aims to give general dexterity and skill in handling special materials and tools.

The aesthetic training aims to create taste through knowledge of color and through knowledge of fitness of material to purpose.

The disciplinary training aims for neatness and accuracy in execution, patience, perseverance and obedience to direction. The whole is a means and not an end. The child's interest in doing these things is turned to educative account.

In this early education many subjects should be given the child so his mind may be exercised by many mental processes. This will lay a foundation for broader experiences later.

Here, too, the student must be trained in the habit of quick and concentrated attention, a tendency which is not naturally possessed by the average child.

That concentration is a necessary asset to the adult, in this time when we hear so much of efficiency in all occupations, we are positive.

Many people lack in mental efficiency because they have not this power which enables one person to grasp in five minutes what another may be hours in comprehending. Youth is the time to awaken and train this power. Skill in discovering the means of interesting the child mind enough to compel attention is the characteristic of a good teacher.

To be very practical, just what shall we give in order that our grade people shall acquire an art vocabulary, that they shall have something to say and that this something shall be a direct result of real knowledge and appreciation of materials with which they are surrounded.

Each locality has its own particular condition. We must choose. We need to eliminate, to develop certain phases in certain grades, to use many processes where more power is gained from many attempts than from a sustained study. To reverse this when the pupils are ready for it.

Certainly those processes that develop a feeling for form are essential as,—

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Modelling, the moulding of shapes of interest in play and in home life.

Tearing, cutting or brush silhouette to recognize tree masses, animal forms, toys, children in action, also cutting of decorative units and letters.

Some definite color study beginning with color recognition, discrimination of color hues and values, studied first through observation and selection of examples, later through the use of pigment.

Landscape so far as it awakens observation of nature or gives a setting for illustrative work. Plant study for love of color and beauty of growth, the suggestion of beautiful decorative motives and color combinations. Illustration of games, occupations, songs, stories, a real play with familiar forms to convey some particular thought.

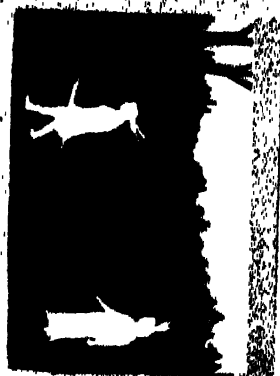
Following this, say in fifth grade and up, the quick action sketch with charcoal or pencil to show action and proportion and feel the swing of the figure.

This year our sixth grade classes followed their quick sketching with costume work, selecting the style and material for a summer dress and applying their knowledge of color harmony. The eighth year pupils used their athletic sketches in posters to call attention to our Spring Festival and Young People's Exposition. Concrete examples of our results may be found in a small exhibit in the exhibition galleries. These grade people gain much through carefully selected, constructive and decorative design. The planning of some form, the making of a single unit and placing it well or using it in a border or surface pattern to add interest to this constructed form which is useful and pleasing to the child,—these experiences tend to create this so called "Art Vocabulary."

As a child advances in years his perceptive faculties become more acute, his muscles need greater development, more extensive drill and practice is possible. He has also gained some power of concentration, more truth and accuracy in observation, a finer sense of appreciation in the use of decorative motives. Harder and less pliable materials may be handled intelligently. Training is necessary to stimulate self expression.

Because of real interest in the processes of his work, more may be expected in technical efficiency. Greater truth in representation is possible with the study of ways and means of rendering observations. The study of foreshortening and the appearance of things with reference to their position in relation to the eye enters into the course, taught through observation rather than principle.

The elements of interest and individual need should still have decided bearing upon construction work. The average schools offer wood work, pottery, leather, book-binding, sewing and cooking.



Training School for Teachers, Rockford, Ill.

In the upper grades the nature of the work requires more time for expression hence the number of processes must be lessened. The really essential must be given.

Surrounding these boys and girls with objects of fine types and with excellent pictures and prints creates a feeling of refinement providing we see to it that they have some knowledge of these things. Appreciation comes with knowledge.

Mechanical drawing also enters into these higher grades.

Definite color relations may be taught, such as appreciation of color and color combinations as suited to selections of rugs, wall coverings and hangings, also as applied to suitability of clothing to the person, the beginnings of civic pride in the beautifying of school grounds, and in the arrangement of shrubs and flower harmonies. These are practical problems when pupils have some knowledge with which to work. Much can be done to awaken a feeling for art in the community.

In the High School where the work is taught by a special teacher the power of appreciation is more fully developed, greater refinement, good judgment, finer technic is naturally expected. However for the mass of public school children we can hope to raise their standards and by surrounding them with good things,—the kind of things which they are likely to use in every day life, by opening the eye to see and recognize the beauty in nature and the possibility of making useful things beautiful, to realize that true art means the meeting of any condition in the finest possible manner.

In the proportion that we do this we shall have succeeded in being of real service to our boys and girls and our community. While we would not teach art for art's sake only in our grades and while we do desire to see the application of art in various live relations, let us see to it that our pupils feel joy in the work, that they desire to express themselves and that they are forming habits of independent thought and judgment based upon real appreciation.

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FRED V. CANN, CHAIRMAN.

The Chairman: We are starting under a rather heavy handicap for time, but I will try to get through as nearly on time as possible. Among the many institutions in Chicago that are of special interest to this convention, is one that I have been very much interested in, the Chicago Typothetae School of Printing. It is a school founded some two years ago by sixteen or eighteen printers here in Chicago. They have been doing some very interesting vocational work. I might mention a number of instances that I know of having happened in connection with the school, but I am going to ask Mr. Woodfield, who, I know, can do it much better than I can, to tell you of some of the problems that have come up and that he has met in his work.

MANUAL TRAINING AND INDUSTRY

(J. L. WOODFIELD

DIRECTOR OF CHICAGO TYPOTHETAE SCHOOL OF PRINTING

The comprehensive title of the subject assigned has given me great freedom in choosing what shall enter into this paper. It shall be my aim not to abuse this freedom but to present some definite ideas within a limited section of the field covered by this subject. Since the subject is so comprehensive, it has seemed to me that we can best start from a definite point and travel along a definite path towards a definite end if we begin with a few statistics.

So many times we have heard just what per cent of the pupils of the public schools drop out from grade to grade that we have grown too tired of the repetition even to remember the figures. However, as a starting point, I do wish you to recall that statistics show that not over fifteen per cent of those entering the first grade ever enter high school. Putting this fact in another way, out of two crowded primary rooms, each having fifty happy, innocent, lovable children of six and seven years of age, not over fifteen of them will ever enter high school. Forgetting for the moment the eighty-five, let us consider some figures dealing with the fifteen. The

figures we shall give concerning these fifteen are taken from Bulletin No. 6, Whole No. 630, entitled "A Study of the Colleges and High Schools in the North Central Association," published this year by the United States Bureau of Education. The North Central Association includes the following fourteen states: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota and Wisconsin.

The figures in this report were compiled from 765 high schools. These schools enrolled 215,589 pupils. Of this enrollment 38.1%, or in round numbers about 83,000, were in the first year of high school. Of the entire enrollment 15.9%, or about 34,000, were members of the senior class in high school. These figures show that within the section of country included within this Association only a trifle more than one-third of those entering high school ever begin the fourth year's work. Let us apply these figures to our little band of fifteen boys and girls, the fifteen out of the one hundred who entered the first grade. These figures mean that only five or six of them will ever become high school seniors. Let us be liberal and suppose that six out of the original one hundred who entered the first primary graduate from high school. We want to know next what becomes of these six, that is, into what work do they go as their life's work? The bulletin from which these figures have been taken gives this information for a recent class. Since our subject limits us to industry, we have to ask what per cent of these graduates go into the industries? This Bulletin shows that only 3.4% of high school graduates go into the trades or industries. This means that only three out of every one hundred high school graduates ever enter the industries; that only a relatively small per cent of the men and women in the industries have ever been enrolled as high school pupils, much less completed a high school training.

Some are doubtless asking what significance have these facts? The answer is: first, that of the men and women engaged in the industries at least 85% of them never attended high school a day in their lives, and of the few who have attended less than one-fifth of one per cent ever graduated; and, second, since the high school, not the grades, has been the only educational agency in the past and, to a large extent, is the only educational agency at present which furnishes boys and girls even a little bit of manual training which may fit them for their future work, the result has been and is yet that most of our youths must enter upon the task of making a living without any training for that task. So far in your teaching experience this fact may never have concerned you. If it never before has, I hope that henceforth it *will* concern you. The eighty-five who never reach that agency which may give them a little practical training for life's work, and a few of their more favored fellows who reach the agency but cannot enjoy its benefits, these are entitled to more consideration than they have

been receiving. The Teacher of teachers taught that the Good Shepherd braved the fury of the mountain storm to bring a lost one per cent back to the ninety and nine. What should modern teachers do when it is not one per cent but more than eighty times that number who are without the fold proper of educational shepherding?

When I was a public school superintendent, one of the educational tragedies I witnessed almost daily was that of grammar grade and high school teachers spending their pupils' time on things which it was very evident these pupils would never and could never use in their daily living. And the hours that were being devoted to this *unusable* education were the only ones these boys and girls would ever have which might have been devoted to learning some things which would prove *usable*. I am not making these statements as an attack upon our present day system of education. I am simply trying to get to your minds a correct conception of educational conditions as they actually exist. And these conditions do actually exist, exist in every state and every community. It is not my purpose to say who, or that any one, is to blame for these conditions. While the teacher is the immediate agent through whom these conditions manifest themselves, yet she is usually but a tool to carry out the will of an organization over which she has no control. I have been a teacher or a director of teachers all my life and I know with what seriousness and earnestness teachers, as a class, work. I know of no class receiving for such splendid service so little pay and so scant praise. Nevertheless, the facts remain, as the figures presented show, that, when teachers have done their best, a large per cent of their boys and girls must go to life's work without training for that work. This means, then, that millions of our workers, dropping out of school from the fourth grade up, must begin at the very bottom in industrial work and get their training in the school of "hard knocks" by the "cut and try" method. This method of training produces some remarkably good results in the few who are naturally equipped to withstand its severity, but it throws far too many workmen into the scrap heap just at a time when they should be at their best. But so far we have been willing to pay the price that these conditions impose. This price has been and will continue to be an excessive waste of human life and human effort, an excessive waste of raw material, and an inferior product turned out at an exorbitant cost.

How to eliminate this social and industrial waste is the gigantic educational problem now awaiting solution. It would seem that its solution lies in the universal introduction of a system of manual training education. Whether this system will be connected with the present school system, or whether it will be connected with the industries themselves, does not now clearly appear. While its solution effects every living human creature in our land, yet there are three classes who are most directly concerned.

These are: (1) Teachers and educators and the present organized system of education; (2) Employers of labor and the vast industries they represent; and (3) The millions of laborers and their growing children. While this last class should be the one most intensely interested, yet my own belief is that this class evinces the least interest in the solution of the problem. My reasons for this belief will be given in the closing paragraph of this paper. Since we are all teachers, I shall assume that we are informed to what extent the members of our own profession and the organization to which we belong are interested in the solution of this problem. But I think we may profitably devote some time to considering what the third class, the employers, are doing to solve this great educational problem.

Some of you may not know that many large industries maintain their own Educational organizations devoted to training their own employees. A few of the many firms maintaining such organizations are, American Locomotive Company, American Multigraph Sales Company, Atchison, Topeka & Santa Fe Railway, Burroughs Adding Machine Company, The Curtis Publishing Company, Metropolitan Life Insurance Company, The National Cash Register Company, National Cloak and Suit Company, and the United Cigar Stores Company. One of the best known schools of this kind is the Lakeside Press School for Apprentices maintained here in Chicago by the large printing firm of R. R. Donnelley & Sons. This school has been in successful operation for more than seven years. Its splendid success led to the establishment about a year ago of the Chicago Typothetae School of Printing. It is the purpose of the Typothetae school to do for the many firms maintaining it what the Lakeside Press School does for the one large firm maintaining it. The success of these schools has led the national organization to put forth special efforts to establish similar schools in every section of the country. The purpose of these schools is to educate and train workmen for the printing trade, taking boys at the age of 14 to 16 years and giving them such academic education and manual training as will fit them to be educated and skilled workmen by the time they reach 21 years of age. The boys attend school half time and work in the shops of their employers half time. The boys pay nothing for the educational advantages of the school, and are paid by their employer for the part time work they do. This plan, part time school and part time work, the school free and the work paid for by the employer, prevails among these corporation schools, the name by which these educational organizations maintained by the industries are known. Corporation schools have so increased in numbers and their interests have become so extensive that more than two years ago a national organization was formed, known as the National Association of Corporation Schools. This organ-

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ization holds annual conventions similar to the National Education Association.

The number of pupils in corporation schools one year ago was about ten thousand. The past rate of progress would increase this number to twelve or thirteen thousand at present. That these schools have been successfully maintained and are rapidly increasing in numbers is the best kind of evidence that employers of labor believe that manual training pays, even when the employers themselves have to pay the entire expense of having it given. This presents as extensively as time permits what employers are doing to solve the problem of educating for their life's work the 85% to whom the school gives only a stone when they beg for bread. We shall consider next very briefly the educational principles and the manner of instruction employed in these schools.

Corporation schools do not take pupils younger than 14 years, and most of them do not take them younger than 16 years. Most of these schools will not take pupils who have not completed the work of the grammar grades. The academic instruction given in corporation schools is thus based upon the preceding grade work. All academic instruction correlated with any kind of manual and trade training must have as its foundation that elementary knowledge that the grade work is supposed to give. To whatever extent the grades have not done this work effectively the manual and trade training teachers must do it. Most of you know from unpleasant experience how little of even the fundamentals many grammar school graduates really know. An elementary educational principle among corporation school teachers—and I speak of corporation schools so frequently because these schools are actually teaching manual training in the industries and not teaching at this subject as a side issue to vitalize the other subjects of an uninteresting curriculum—an elementary principle among these teachers is that "telling is not teaching." From the kindergarten teacher with her gorgeously ornamented fairy tale to the university professor with his hour of learned lecture, the actual practice of our educators is exactly the opposite of the psychology that they preach. But education for the industries is valueless unless it is accurate and exact. Five misspelled words out of a lesson of twenty-five will get the speller a passing grade of 80%, but a single misspelled word in a completed job of printing will make it necessary for the entire job to be done over with the consequent loss of all the material used in the first job and a double expense for labor. Hence industry does not require its workmen merely to "know about," to "have heard of," or to "think" so-and-so about a large number of things in every field of human knowledge, but it does require workmen to know accurately and exactly whatever is necessary to enable them to produce a practically perfect piece of work without waste of raw material and without unnecessary labor. This means that the

method of teaching in corporation schools is to select the things that are elementary and fundamental in the industry for which a particular school is training, then to state these elementary and fundamental things in the most concrete way, and finally, to give the pupils practice material and work requiring the application of these elementary and fundamental things until these things are not merely matters of memory in the pupils' mind but have been built into habits of action in the pupils' muscles.

Logically, the next point to discuss is whether or not this kind of manual training education can be given in the public schools. Many public schools are attempting it, and some of them seem to be making a success of it. However, since industry requires such a high degree of accuracy and exactness in the education that trains for it, employers are becoming more and more doubtful that the public school will and can adapt itself to give this kind of training. But time cannot be taken to discuss this point further. The industries are here; they are growing larger and more numerous every year, and each succeeding year offer employment to more workmen. The boys and girls are here who must very soon make their living by working in these industries. At present practically nothing is being done to prepare these boys and girls for the task they must so soon begin. The most important educational experiment on this problem has been conducted by the industries themselves in their corporation schools. For this reason alone I have spoken as fully as I have about this class of schools. We shall speak next of the advantages that the industries offer to those who will train themselves to become skilled workmen.

It has been said above that the employees, who, as a class, should be the most interested, seem to be the least interested in securing a manual education fitting them for industrial service; that industry suffers for want of trained workers; and that some corporations are paying the cost of training their own employees. It seems to me that one of the reasons why so few of the industrially inclined have insisted upon securing a suitable manual education is that so little has ever been said about the value in dollars and cents of such an education. Practically every public speaker, teacher, preacher, lecturer, and deliverer of baccalaureate addresses has emphasized the value in dollars and cents of securing as much education as possible. But the kind of education they have emphasized has been the book variety for the professions. Most of the many who were going into the industries were not even present to hear the encouragement given to the few who were planning to go into the professions. The industrially inclined few who might have heard the words of encouragement given to the professionally inclined found nothing in those words for themselves. Their life's work was not even worthy of mention; they were not worthy of training for it.

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It is high time that educational speakers should get some new material for their inspirational addresses. They should look into the possibilities of training for the industries and have a message for the 85% who will go into these for their life's work. But lest most of these may not make these changes, permit me to offer another suggestion to every teacher present who is interested in having boys and girls inspired by some definite knowledge of what the industries offer in dollars and cents. My suggestion is that you make a study in your own city of the wages received by the leading men engaged in the different industries. This list will include superintendents, foremen, and the more skilled workmen. Compare their wages with the salaries of the professional class of the community. In many instances you will discover that the actual yearly income of the latter suffers by the comparison. But you will discover also that the professional class gets more out of a dollar than does the industrial class, due, very likely, to their greater mental acuity unconsciously developed by their more extensive education. When manual education for the industries is properly organized and presented, this defect will be corrected by giving every boy and girl taking this training a thorough and practical education in economics. But do not wait for that time to come, make it already present by giving your pupils the information as soon as you collect and organize it. This brings us to the next phase of this subject that should be discussed, namely, the curriculum and kind of textbooks needed for manual training work for the industries.

The courses of study for manual training for industry will necessarily vary widely for the different industries. A few subjects, as social economics and practical hygiene, should form a part of every course. But History, Mathematics, English and Geography, if properly taught, will draw their subject matter largely from the industry for which the pupils are being trained. And the organization of material in these texts will be decidedly different from that in present day texts. For the pupils for whom these texts will be prepared are handminded, slow of mental growth, and have little interest in books as sources of information. Hence, for them, each thought that moves the mind forward towards a broader education must be stated in the fewest possible words, in the simplest style, and as a complete unit in itself. Accompanying each forward mental step must be enough practical material to furnish each pupil enough activity in relation to the truth that is being taught to keep the pupil interested in that truth until it has become a vitalized part of the pupil's life. But the proper treatment of the course of study and the textbooks for manual training in the industries requires more time and space than are at our disposal. We leave this subject to take up the concluding paragraph of this paper in which we shall speak briefly of the human material with which manual training for industry must deal.

During the past year I have selected about fifty boys for our corporation school. These boys were picked out of a thousand to fifteen hundred who made personal application. Since all our advertising stated specifically that we wanted boys who were eighth grade graduates or better, it is reasonable to think that most of those who applied had that amount of education. My estimate of these boys is that most of them were very poor material for any kind of industry. Here in Chicago we hear a great deal about "dead-end" and "blind alley" jobs, and how such jobs dull and dwarf the minds of those holding them. My own observation is that "dead-end" and "blind alley" jobs are more a result than a cause, that for every such job there are at least a half dozen "dead-end" and "blind alley" boys seeking it. And as for dulling and dwarfing the minds of those holding these jobs, how can they do such things when the boys have practically no mental qualities to be so affected? We are likely to have a law in this state making it unlawful for any child under sixteen years of age to work for wages, thus, as the philanthropic makers and backers of the law reason, affording boys (and girls) two more years' education. But I have not found that the many boys who have applied to me want to go to school. Neither do their parents want them to go to school. To most of them the idea of more school is a huge joke, and whenever enough of them were present at one time to give them a sense of power because of their numbers, their reaction to the idea of going to a school of any kind was a yell of derision. But the fact that so many young people are such poor material for the industries, and that they are destitute of that inner something that should impel them to develop whatever abilities they have, makes the problem of giving manual training for the industries not less but far more difficult. The young people are here and the industries are here; the young people must give their labor for a living, and the industries must give them a living for their labor. Those young people would give better labor and get a better living and the industries would get better labor and give a better living if these young people were trained for their work. Since these young people, between the ages of fourteen and eighteen, seem to have no idea of their need for more education and training, the system of education that supplies their needs must give them a maximum amount of work with as much closely correlated education as possible during these fateful years of youth. These handminded children of slow mental growth, whose life is more muscular than mental, should have this muscular activity largely guarded and directed by an intelligence outside themselves until their slowly developing minds awaken to their need of as much education as they have capacity and time to get. To so guard and direct the activities of these young workers means, as I see it, that a system of manual training for the industries must extend over a

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period of at least seven years, from the age of fourteen to the age of twenty-one. And since these young people, as a class, are not keen minded enough to foresee and prepare for their own future needs, one of the great things that should be done for them is to direct and develop character formation. Bad habits, formed during the ignorant years of youth, constitute one of the big blights of most workmen's lives. And in this matter, as in that of trade training, the interests of industry are identical with those of its employees. In conclusion, the mutual interests of both demand a kind of manual training having the following features: (1) A method of individual development based more on muscular than mental activity; (2) A closer correlation of all academic studies with the actual work of the trade; (3) This system of education extended over a period of years, not less than from the age of 14 or 16 to 21; (4) The whole system supervised by broad-minded teachers who labor not for their pupils' tomorrows but for their future years; and (5) A system that will train each youth in correct habits of character as well as in correct habits of manual skill and mental activity.

DISCUSSION.

Mr. Drueck: I have been asked to open the discussion on Mr. Woodfield's paper on Manual Training and Industry.

You will remember the first part of his paper opened with statistics concerning this wonderful 85 per cent we are all so worried about. I think if we look into that we will find that the basis for forming that 85 per cent has an error in it. It is usually taken in the fourth year. Naturally your senior class estimate is made on the basis of the present status of your class instead of being made on the basis of the first year class four years previously. That may not seem to be a very questionable error, but when we stop to consider that the present increase in enrollment in the public schools has been ten times that of the increase in the population of our country, there certainly is a big error in arriving at that 85 per cent. I honestly believe that that 85 per cent, if made on a different basis, would have considerable shrinkage in it.

But let us take that 85 per cent that the corporation schools are serving. They take 1,500 people, as Mr. Woodfield says, and select out of that fifty, so here are fifty all from the seventh and eighth grades. But the 85 per cent are supposed to come at an earlier period, at least part of them begin in the sixth grade. But even granted that they take these, these young men have made up their minds to go into this definite vocation. What have we in the public school? We have the whole 100 per cent starting in the first grade who have no idea of what vocation they wish to go into. We must train them not only for vocation, but for society—that is

what our psychology tells us. So that the education that we are to give them is very hard to determine for each individual when the individual has no idea of the vocation into which he is to go.

I feel that it is unfair to say that the public schools have given the children a stone when they cry for bread. It is our problem to try to answer the voice, this voice crying in the wilderness, and it certainly is a wilderness, to try to administer to these young people coming into our schools.

Mr. Bauersfeld: I was asked to say a few words in regard to the problem of vocational guidance, the problem of the boy after he leaves his school, and it has been shown that vocational guidance is desirable, but I feel that that problem is only half your problem and I will say it is the lesser half. I believe the bigger half is the problem of the school, the problem of guiding the boy to find his work, and particularly so with the indifferent boy. The wide awake boy will do things in spite of you, but it is this indifferent boy that is the big problem all along, whether he comes of the very poor, of the moderately situated, or the homes of the wealthy. It is the indifferent boy between the ages of fourteen and sixteen that does not know just what he wants and that has to be guided in finding himself.

I speak with considerable feeling on the subject; I am up against that problem right now. I have a boy that was sent to my school and I promised the father, "We will try to make a man of him." The father said: "My son doesn't know what he wants. I wish you would take hold of him." I have made him go through the regular routine of things, but this boy is neither bad nor good, he is neither bright nor is he a fool, he is neither physically very strong nor is he weak, but he is simply indifferent; neither hot nor cold. I thought possibly he was a big exception, but I find there are a lot more of those fellows all through the schools, a boy that has had all things done for him, the necessities of life pressed upon him and he has even been able to get a good many of the luxuries of life, and the result is he doesn't know what he wants. He is not strong in academical work nor in technical work, he is simply able to smile and take no thought of the morrow.

Now, then, I try to inspire that boy, to push him, to make him feel like creating something, overcoming obstacles in the material world, and he takes it all as a matter of fact, "Why, yes, that is all right. What of it?" If he gains 75 per cent standing in his class, it is all right; if he gets 60 it is somebody's else fault. He is the kind of problem that is filling our schools.

We all know about how the problem of vocational guidance has been developed in Detroit, Chicago and St. Paul, all the big cities. It is splendid work, but after all it is in the condition that it has just scratched the surface of the four hundred thousand boys and girls, most of whom have

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not been reached at all and many of them are the indifferent boys and girls, the ones that do not need food, can get along somehow. To my mind that boy is the unsolved form of problem that is to be solved, in which many things come up. It is not a problem for today or tomorrow, but will continue to be a problem, as far as that boy is concerned, throughout the four years. The ordinary thing we do in such cases is simply to say, "Oh, well, let that boy go to work. What is the use of spending \$1,500 on a 15-cent boy " But, no, we want to train that boy in the way he ought to go. If he went to work, he would be selling ribbon at Field's. He is looking for an easy job when he is looking for any. What we want is to help that boy to find himself in that critical stage between fourteen and sixteen. He ought to be able to accumulate a certain amount of guidance that will help him. No special formula can be applied, but it is a matter for study, not for one day, but for four years, trying to hold that boy in school and try out the various lines of work.

That is vocational guidance, it seems to me, at the right time and with the right work, and then when he gets beyond that critical age we will be able to help somebody form some sort of influence to direct him in the way that he will make the best of his life.

Mr. Brace: I have just one point to speak of in regard to the last paper, to emphasize rather, and that is along the line of organization of work. It seems to me that some of our work is not well enough organized, and, on the other hand, some of it is too well organized. If we were to follow out the dictates of some of our magazine articles, the movement of our machinery for organization would consume all of our power and we would spend all of our time in organizing our work.

I believe every supervisor has in his corps certain teachers that can do certain things best. I have in mind manual teachers in the grades who are good at book binding, others who are good at sheet metal work, and who can do that line of work better than they can do ordinary home work which they have to do in most of the grades. I believe you ought to allow those teachers to exercise their own choice in doing that kind of work out of which they shall get the best results, and what applies to the teachers applies to the student boys. I believe certain boys should not be held in a certain group of manual training, because it is put down that that certain work shall be done.

I do not sympathize with the manual training teacher who could tell any hour of the day what every particular pupil was doing. I do not believe in sticking rigidly to a course like that.

I have a boy in my class who cannot do certain work, but he can do pattern making splendidly, and I believe in allowing him to do that.

In order to get the greatest efficiency from our teachers and from our pupils, I say let them do those things that they can best do rather than

doing the things that we want them to do because they happen to be in the course.

GENERAL DISCUSSION.

A member: Does the last speaker believe in letting the boy do only the easiest thing?

Mr. Brace: I would not say that because a boy can do a certain thing well that it is because it is the easiest thing. I think we all feel that there are certain lines of work that we can do better than we can others. Whether it is easy or difficult, if we can show the best results along certain lines that is the thing for us to do.

ECONOMICS OF VOCATIONAL GUIDANCE

RAYMOND C. BOOTH

At first sight, it may seem somewhat out of place to introduce such a topic into a manual training round table discussion, but second thought will show a close relation between manual training and vocational guidance. Each is a phase of the movement for vocational education, and is an outgrowth of it. Each is designed to help in the development of those boys and girls who have heretofore been comparatively neglected in our educational scheme. Viewed in this light, it may readily be seen that they are counterparts one to the other. As someone has well said, no scheme of vocational education can be made truly effective unless it is supplemented by vocational guidance. In like manner, no system of vocational guidance can realize its possibilities where vocational education is not an assisting force.

I have purposely selected the economic aspect of vocational guidance as the basis for my paper because it is a side to which too little attention is given. The tendency has been to emphasize the altruistic and philanthropic ramifications of the subject—a point of view which is too narrowly individualistic taking into consideration only the immediate benefits which accrue to the boys and girls who are given some assistance in their choice of an occupation. The economic viewpoint is more far reaching and embraces all classes of society showing the results in improved social and industrial conditions.

Many of the big industrial and sociological problems confronting us today are due to the wrong start which boys and girls have had vocationally. They have "hooked up" wrong on the economic side, and this one fact has been responsible for a large number of misfits in society. It may prove interesting to trace how this is brought about.

As we all know, a great majority of children leave school prematurely without any educational equipment that fits them for useful service. They drift into so-called "blind-alley" jobs, or into jobs which are rendered so by the fact that they are "blind-alley" workers. This leads to a constant changing and shifting from job to job with increasingly long intervening periods of unemployment. It is during these intervals of being out of a job that so many children fall into delinquency and are brought before the juvenile court. An officer of the court once stated in my hearing that fully 80 per cent of the wards of the court, in part, owed their presence there to the fact that they had drifted into evil habits as a result of the

lack of a job to steady them. He estimated that a fully organized system of vocational guidance in Chicago would reduce juvenile delinquency by from 50 per cent to 60 per cent.

Records at municipal lodging houses and similar places reveal the fact that most of the men who are out of work and seeking employment have never found themselves vocationally. They got a wrong start as children and have been drifting ever since; able to do only the most unskilled work. From a condition of unemployment, it is, in many cases, but a short step to criminality and pauperism. Our penal institutions and almshouses are filled with those who have been recruited from this outer fringe of society.

The results of such a condition in terms of social loss are obvious. Instead of producers adding to society's betterment, we have consumers who do not produce. The cost of maintenance of agencies and institutions to help the unemployed, to house the criminals and paupers, is enormous and entails a great economic burden.

Viewing the situation from the narrower viewpoint of commerce and industry, we find a similar waste. Our industrial system is glutted with floaters who move from job to job without any permanency of employment. This has, in a large degree, been responsible for the present "hire and fire" system, which is so prevalent in industry today. The constant depletion and recruiting of the working force is a serious economic loss. The cost of advertising for new help, time consumed in interviewing applicants, selection of workers, the supervision of recruits, spoiled work at the start, low efficiency and productivity during the training period—all these are factors with which employers are obliged to contend. While some concerns purposely maintain a reserve working force to be called upon when business is booming and rush orders are coming in, there are many others which are obliged to keep "hiring and firing" because of the misfits which do not prove satisfactory. Statistics show that some establishments in the course of a single year have twice as many "hirings" as the total number of their working force. An efficiency expert, estimating for industry as a whole, has figured that it costs from \$30 to \$35 for every new employee in unskilled work. For skilled work, of course, the figure is considerably higher. Such statistics speak for themselves in showing the loss to industry which, in part, is directly attributable to the wrong start received by so many when they were young. It is no wonder that we have unstable industrial conditions.

Since it is seen that both industry and society as a whole are losers because of this condition of things, it follows that any movement which has an ameliorating influence can rightly be classed as an efficiency movement. It is recognized that one of the greatest essentials to efficiency is conservation, and that the human factor in efficiency is paramount. Voca-

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tional guidance, therefore, is an efficiency measure in that it conserves the human factor. The place to attack our sociological and industrial problems of industrial instability, unemployment, and their kindred evils is at their basic source. This can be done by working with the growing boy and girl so that their best potentialities—the greatest natural resources that we possess—may be utilized for good.

Such is the ideal which vocational guidance must have in view. It can be approximated only by a closer relationship between the schools and employers. We need to have clearing houses established which can assimilate the product of the schools to the advantage of all concerned. Such vocational guidance bureaus, acting to retain in school where possible those who have left prematurely, and to keep them there until they are more efficient, and also to place those who have left permanently in positions for which they seem best qualified among industries which have been investigated as to whether they are proper places for boys and girls, can do a great deal to remedy present conditions. A careful "follow-up" should be made of all so as to be able to keep track of their development and progress.

While mistakes will undoubtedly be made, such vital contact with the children at this critical period of their lives will arouse the vocational impulse in them and make them more adaptable to coming changes. Those, who from the outset have been placed on the right track, will be more likely to "stick on the job." Thus, through a proper start of the young worker, a firmer, industrial basis is given his life, and he therefore becomes more efficient, both as a worker and as a citizen. The ranks of the unemployed and unemployable can be greatly reduced. Criminality, pauperism, industrial instability and social waste can be appreciably lessened. In fine, there will result a shortening of society's debit column and a lengthening of the asset column.

MANUAL TRAINING EFFICIENCY

CHAS. W. SYLVESTER

DIRECTOR OF MANUAL TRAINING, SPRINGFIELD, ILLINOIS

This Century has been rightly named "The Age of Efficiency." Many of us have heard a great deal about Efficiency but how many of us really know what "Efficiency" means? One of the standard encyclopedias has this today: "Efficiency recognizes the mechanical idea of balance between energy furnished and work returned, but it recognizes also that unpreventable losses occur in every cycle of operation or transformation and it does not charge these against the efficiency of the process or the agent which must work in that cycle."

The pursuit of efficiency thus becomes a diligent effort to discover and remove preventable losses and wastes so that the largest returns may be secured for the least expenditure. Efficiency therefore depends on adopting the best available methods to realize the highest attainable standards in the achievement of ideals. The first principle of efficiency is ideals, but the second is common sense, and stress is therefore laid on the qualifications available and attainable in the proposition just stated.

Manual Training is a term that was formerly used to signify the systematic study of the theory and use of common tools; the nature of common materials; elementary and typical processes of construction; the execution and reading of working drawings, the study of printing, cooking, sewing and all other forms of handwork for both boys and girls. Since the teachers of girls' handwork have appropriated for use "Household Arts," the instructors of handwork for boys are given free and unqualified use of the term "Manual Training."

We have manual training work but we need greater efficiency. I shall endeavor to show how we may attain efficiency and thus develop all of our practical work to the highest standard of efficiency methods and application to real life.

Mr. Louis D. Brandeis, the noted lawyer and reformer, says, "Efficiency means greater production with less effort and at less cost, through the elimination of unnecessary waste, human and material." Our larger wastes of human effort, which go on every day in our manual training shops are due to blundering, ill directed and inefficient acts. Society today is looking for the ready made, competent man, the man whom someone else has trained. It is only when we fully realize that our duty as well as

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our opportunity, lies in systematically cooperating to train and to make this competent man instead of hunting for a man whom someone else has trained, that we shall be on the road to efficiency. Our material waste is another vital problem which must be recognized and adjusted. It is an undisputable fact that in all lines of business the wastes of yesterday are the profits of today. This statement too is true with respect to our manual training work. By careful adjustment of our work to efficient methods and measures, we are sure to produce more with less effort and at less cost.

There are many things to be taken into consideration that essentially contribute to the efficiency of manual training. The important ones are:

1. Support from our school officials.
2. Recognition of value from our universities and colleges.
3. Material help from our teachers training schools.
4. Competent instructors.
5. Cooperation of all teachers.
6. Judgment in buying equipment and supplies.
7. Standardized arrangement and successful management.
8. Just amount of time.
9. Modern conveniences and labor-saving devices.
10. Standards and standardized methods.
11. Practical courses of study.
12. Correlation and application.

Herbert Spencer was without doubt the greatest educational leader of the nineteenth century. In his characteristically vigorous fashion, he called attention to the narrowness, formalism, and lack of function of the prevailing types of education. He showed clearly that scientific studies, which had made their way frowned upon and unrecognized by professional educators, were a very important, perhaps the most important, part of education. He showed also, even in that time, that education which did not function in practical life was at best a waste of time and at the worst a very positive incumbrance.

And today we are not getting the support of many of these fossilized individuals who really style themselves advocates of practical work. We also have many of these fellows even in our own ranks. I have taken special notice that our most ardent knockers are the first to come to our print shops for a job in printing and to our cabinet shops for a piece of furniture or some building repairs. There are yet many of the "died in the wool" pedagogues who contend that the only way to teach the minimum essentials is by the every day method of "pounding in." They will not concede the proven facts that the practical will save our boys and girls, at least a large majority of them, from failure both in school and in their life's work. In my estimation it is only a selfish motive that keeps some

school people from giving manual training credit for the great good it has done. Just recently in conversation with a school man in a small city, I was surprised to learn that he did not favor manual training in a certain industrial community. His reason was this: "They should have all of the academic knowledge they can get. They will have to enter an industry anyway."

The rivalry between the devotees of subjects, academic or industrial, old or new, must be set aside and the welfare of the boy or girl justly considered. Those who will be wage earners for efficient living must have an education with the proper standard. That standard will be the same as the academic standard of efficiency.

The colleges and universities are constantly saying to us that manual training must meet a standard of educational value equal to any part of our curriculum before we can justly demand that the colleges accept these new courses as a preparation for entrance. We are certainly already meeting those standards and many of our manual training departments are by far surpassing the standard in any other subject. What we should demand, and we could rightly do so, would be for the colleges to give credit toward graduation for much of the work we are doing in our High Schools. I have seen much better work turned out in our manual training departments than I have seen in many engineering schools.

It is my belief and knowledge that many of our prominent speakers on manual training, industrial and vocational education have not so much as soiled their hands in the toil of industry. They have moreover had the opportunity, time and appropriated funds to do much traveling and from observation and literature have been enabled to take possession of and exploit the many good things that we have done and receive credit therefor. I often wonder about some of these persons and if they really know as much as Hamlet did when he said, "I know a hawk from a hand saw." Just recently a very eminent professional gentleman made the remark that we should not be doing bench work in the sixth grade. Many thanks for the criticism but not a chance to thank him for a substitute. A criticism doesn't mean much to me unless it has an attached coupon good for one remedy. This is the inefficiency of manual training.

We need material help from our teachers training schools. We need to know first the art of teaching. We need to know the best methods, tool processes, how to impart to our boys the correct use and analysis of tools and the one hundred and one other things about buying, organization, management and teaching. And I tell you, fellow teachers, that a school must be thoroughly good and competent to give us all these things in six weeks.

It has been said that many young men go to summer schools to secure training for manual work after they have secured their positions. On the other hand many young men leave a summer school after six weeks'

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work thoroughly imbued with the idea that they are as competent to teach manual training as a four year graduate with natural ability and practical experience. Some of our summer schools are sinners in this respect. A six weeks' course in the majority of our summer schools is time well spent, but the instructors in charge should be very certain that no student goes out from only six weeks work, a thoroughly competent and trained teacher.

Last summer I heard of a certain normal school that not only guaranteed a position with six weeks' work but also granted a diploma to the prospective teacher. I have endeavored ever since to find out how much stock "Woolworth & Co." have in this institution. From some years of experience in dealing with manual training teachers I am convinced that many schools are guilty of a crime in guaranteeing positions to all of their graduates. What is their gain certainly is our loss. I would like to see the schools establish some other method than graduation for passing out positions.

Many of our manual training teachers are inefficient and incompetent. Some of them are inadequately trained, poorly grounded in educational principles and ill-adapted to the practical work in our profession. Much criticism has come to this branch of education from just such sources and not from the value of real manual work. If I were allowed to make one suggestion to the schools for manual training preparation it would be this: Add to your course of study some instruction in vocational guidance and make it compulsory. These teachers to whom I refer have been poorly advised and misdirected. Many carpenters are wasting their time attempting to teach manual training, and some of our teachers would have made better farmers.

My experience this year confirms my opinion and justifies my statement. I am told that one of my former teachers is now successfully conducting a string of gambling devices. This young man is a graduate from one of our largest and most progressive universities. I don't want to leave the impression that I think vocational guidance would have directed him into his present work but I am sure that it would have prevented him from being a detriment to the cause of manual training. Another of my teachers was very willing and conscientious but knew absolutely nothing about manual training. From a careful study of this man's methods, tactics and manners and an application of my guidance principles, I could think of but one profession for him—and that a waiter in a dairy restaurant.

This convention would do wisely I am sure to attempt some solution of the problem of keeping the incompetents from entering our profession. The state examination laws won't protect us. They are a joke. Any carpenter with common sense and who knows how to plane, saw and nail, can pass a high test. I am always willing to give a remedy where possible to

do so, but this condition has many of us guessing.

Much of the success of education depends to a large degree upon the earnest and efficient cooperation of all teachers concerned. I am strongly of the opinion that manual training will never be an overwhelming success without the harmonious working together of all teachers of all the subjects, for all the time. I am also just so certain that none of these other subjects will do their greatest good without practical application. In order that education may prosper and be practical let all teachers acquire the same broad view, have sympathy for commercial and industrial conditions, forget our prejudices, stretch out of our narrow environment and, more than these, be for the welfare of our boys and girls.

The buying and selecting of equipment and supplies is an art which calls for good judgment, common sense, practical economy and competent ability. Much of the recent agitation in regard to "under taught and over equipped shops" is probably due to the former. I have never seen but one over equipped shop in all of my experience and from observation that was due to absence of all of the above qualities. I have seen many shops where the equipment was idle but those shops were decidedly under-taught.

In order that we may equip our shops for efficient and economical use we must know the capacity use of all tools. From scientific study and analysis I have found that while twenty boys may need twenty planes, four rip saws are enough for the average general use. It is also very essential that tools of the proper size, weight and shape should be selected for boys to work with. While a $2\frac{1}{2}$ " composing stick is all right for a man in setting type, a boy cannot use one over 2" deep. Quality should be the first consideration in selecting equipment and supplies and not the name due to so much advertisement and lots of "wind." Our work benches should be properly constructed and equipped and of the correct size for efficient use. Finishing material for our woodwork should be the best in quality, color and lasting qualities. Make your own tests and analysis. "Efficiency takes nothing for granted. It asks for facts regardless of opinion and popularity."

The efficiency of our work can be greatly increased by a scientific arrangement of our shop, equipment and supplies, and by economical management. It would be well in my estimation for all directors of manual training work to make a scientific study and analysis of manual training work, just as Mr. Frank B. Gilbreath did of brick-laying. As you perhaps know he made an interesting study and analysis of each movement and method of the brick layer. All unnecessary movements and waste were eliminated to the effect that the eighteen former movements were reduced to five and the efficiency of the man increased four fold.

All of our equipment and supplies could be so arranged as to facilitate

effective use and to eliminate awkwardness and unnecessary waste of time. A system of doing all things in all ways should be based on efficiency methods.

Our shop management should be as near real as school conditions will permit. The one thing above all others that has driven our boys and girls to distraction and to the streets has been the impractical and unreal way in which many of our schools have been conducted.

Manual training teachers for years have clamored for more time, and rightly too. They deserve it. In the Fourteenth Yearbook of the National Society for the Study of Education we are told that both music and drawing have a larger total time allotment. What justice can you see in that? While we do need more time, we must learn to concentrate our teaching efforts upon essentials and to economize the time we have and to make use of the time we are wasting. Efficiency methods and practices will do more toward stimulating our efforts and increasing our production than twice the amount of time without these elements.

In this modern age of development and progress machinery and labor and time saving devices should be installed in every manual training shop. Not only should they be installed but they should be used. Much time and human effort may be saved by getting out stock for projects by using a power saw. Drudgery from rip-sawing by hand may be easily turned into pleasure. Why should a boy be compelled to plane by hand, duplicate mortises and spend hours at sanding after he has mastered the process, when there are so many machines available at reasonable prices that will do the same work better and more effectively? A mitre box is often abused but in many shops it is not frequently used. Many "jigs," "handy devices" and "helpful kinks" may be made by the boys that will add greatly to the success of the work.

Standards and standardized methods play an important part in the efficiency and effectiveness of manual training work. We must have standardized workmanship, attendance, discipline, design, manliness and educational principles—all these to be attained through standardized methods. Many of the methods of teaching muscular work are essentially left to chance. But in order to be efficient we must not leave our school methods to such a casual factor. It is also a grave mistake to simply stick to the methods of so called common sense and to leave it to the caprice of an individual teacher to decide what method of learning he will suggest to his pupils. There is only one method, the best. Imitation, concentration, competition, loyalty, pleasure, the love of doing and relaxation at the proper time—all these applied to methods are vitally important.

The standard of workmanship should be the best a boy can possibly do. Discipline will take care of itself if a boy is kept interested and busy. At the worst, however, a dose of his own medicine is the best remedy. In

order to secure better results in our manual training classes we must devote the most of our time not to the correction of poorly designed and constructed projects, but to the prevention of this condition.

An efficient course of study must be practical, vital, interesting, simple and fundamentally good. The systematic study of tools, processes and materials is one essential feature of manual training. The incidental use of tools without system for some ulterior object is not manual training. We cannot give a boy manual training by turning him loose in a shop, any more than we can give a literary education to a boy by locking him in a library.

To be effective our course of study, in whatever line of work it may be, must be elastic and made for the boy and not for the work itself. It must be practical, and worth while. Processes, principles and methods should be the dominating educational feature. Many lines of practical work in addition to the traditional course in woodwork should be fostered and maintained. In addition to those things you have heard of many times I would suggest certainly for the grammar grades a course in "Household Mechanics" for both boys and girls. The limited time for this paper prevents me from explaining some of these things in detail. I must, however, say a few words about the most important of all things, "Correlation and Application."

This subject is enough in itself for a week's discussion. The love of the real thing in all its environment means so much to the boy. Few things so stimulate him as feeling that he is responsible for a certain task, that he is expressing himself in it and that he is creating something worth while. The work must appeal to the student as something important and useful. The correlation of the academic with the practical and vice versa is in my estimation the only way to give some students the fundamental principles of right living and citizenship. It is a fact that the boy who goes direct into work from the public school does not coordinate his task with the general activity of the establishment. He needs to be shown how each line of industry and profession serves a great function, has an interesting history and is vitally connected with many of the most important human interests. He should learn to see how the different cogs are essential and worthy factors in the total process.

There are many agents that serve to add new life and enthusiasm not only to our manual training work, but to every other branch of school work.

Excursions of our boys and girls to places of industry gives valuable assistance to our otherwise dry subjects. They also suggest much material for correlation. A good substitute for excursions are stereopticon and moving picture lectures. The slides may be purchased at a reasonable cost. Many manufacturing firms are glad to donate or loan sets of slides

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and moving picture films. Test your manufacturer friends.

The bureau of Forestry and Department of Education at Washington have much valuable material for use in connection with our work. For the asking this may be obtained provided you make your request early enough.

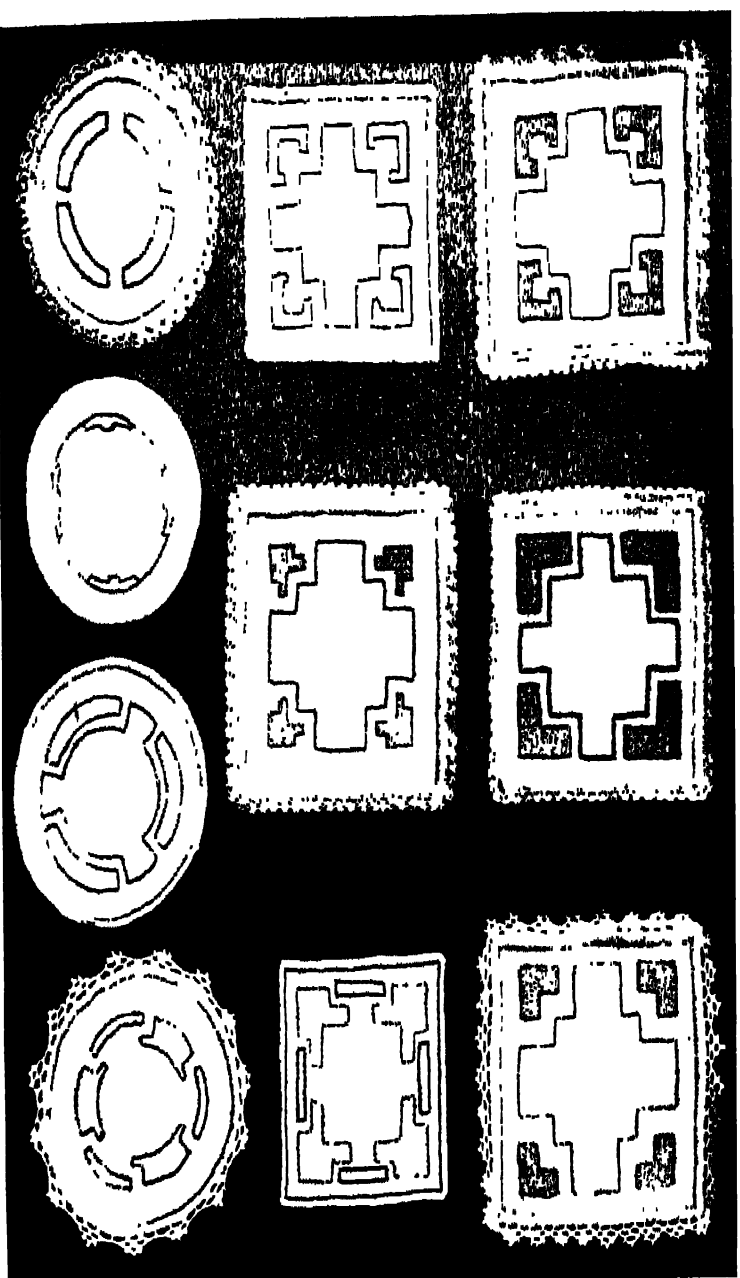
Our manufacturer friends are also anxious to put excellent descriptive matter into our hands, which makes good reading material and valuable text on tools. Many firms are also willing to donate or loan to schools panels showing the various tools in the process of manufacture.

It is usually very easy to secure speakers from industrial plants to give their time and experience in helping to educate our boys and girls. This is a very good way to get the facts "first hand."

A system of shop cards, time records, routing cards and other shop methods add very materially to the correlation of subjects. There is absolutely no end to the problems in mathematics, the material for work in English, real words for spelling, interesting history and the many large problems which our art friends are always willing to help us solve.

Even if I could have gone into detail and had made more emphatic what I have attempted to say, only a fair beginning would have been made to solve the problem of efficiency which has but one rational end, namely to educate our boys and girls for successful life.

George M. Brace, Supervisor of Manual Training, St. Paul, Minn., was elected chairman of the Manual Training Round Table for 1916.



Work of Sixth Grade Pupils Minneapolis Public Schools.

HOUSEHOLD ARTS ROUND TABLE

WINIFRED FRYE, Chairman

THE PLACE AND CONTENT OF HOUSEHOLD ART COURSES IN THE PUBLIC SCHOOLS

JENNIE H. SNOW

CHICAGO NORMAL COLLEGE

Mrs. Richards, who is the mother of the Household Arts movement, left this message for her students. "Control the material things which lie about you and make natural and social forces do your bidding, in order that you may have time and energy to make life beautiful and gracious and worth while."

To me this is the chief purpose for teaching Household Arts in the public school—to make the home life of the children more beautiful, gracious and worth while.

Household Arts has been taught in the public schools of the United States since 1882. Even in its unorganized condition it has justified its introduction into the school curriculum. It has won its way among educators and is now a recognized department of education.

The organizing of the work has been difficult, due partly to the fact that in many of the schools it was introduced as an elective subject, and partly to the fact that there is no body of subject matter recognized as belonging primarily to Household Arts except practical work in cooking and sewing. The difficulty comes in drawing the line of division between Household Arts and its contributing subjects.

Today we are meeting here as part of an Art and Manual Training Association. In December we met as part of the Association for the Advancement of Industrial Education. In November as part of the Central Scientific Association and it has always been a question whether the Home Economics Association should meet with the Economics people or the Science people. Our Graduate school has met with the Graduate school of Agriculture. You see it is very hard to tell where we belong and what belong to us. How much art and science should we teach and how much can we depend on those departments doing for us?

HOUSEHOLD ARTS ROUND TABLE

Your president spoke of "Co-operation" as being the watch word for the meeting. Certainly there must be co-operation between Household Arts and the other subjects if the work is to have true value.

Where does this work belong in our educational scheme? In most of our graded schools it has been introduced into the sixth, seventh, and eighth grades. Do you know what this means? It means that one-half of our girls never receive any training in subjects directly related to the home. According to the last figures, over fifty per cent of our children leave school before they reach the sixth grade.

One of the strongest papers on the teaching of Household Arts I ever heard was a plea by Miss Ida Tarbell for the introduction of this work into the lower grades of the public schools and into the eastern colleges for girls. She had been making a study of the home life of girls in the mill towns and the home life of college girls. She felt the great need in both classes of homes for training in home making. She suggested that the work begin with a child's school life and be as universal as training in the "three R's."

I think slowly but surely we are coming to this. A first grade child knows more about its home, food, and clothes than any thing else. Why not begin his education with a scientific training along the lines with which he is most familiar? The work in food in the two lower grades could be group work, centered around a mid-morning luncheon. In the third grade the girl is old enough to do individual work in the cooking laboratory. Introducing this work into the lower grades need not lessen the time for the "three R's," as it furnishes valuable material for reading, writing, and arithmetic. I believe the time is coming also when part of the nature study in the elementary school will be the growing of the fruits and vegetables used by the cooking classes along with the flowers and shrubs that make the school grounds and homes more beautiful.

I could not help thinking one day as I sat poring over seed and plant catalogues what valuable class work it would make for a group of children who were actually going to grow the plants to read and compare the different varieties and decide upon the ones best fitted for climate and soil conditions in their vicinity. Our schools are going to be more practical; they are going to touch the real life of the child more. Such men as Colonel Parker and Dr. Dewey felt this need years ago and the schools of the country are beginning to show the results of their influence.

You may say that a child in the third grade is too young to take individual work in the cooking laboratory. I do not agree with you. I have taught cooking in every grade of the elementary school and my experience is that the third grade child is at the right age for the presentation of organized cooking work. I know several Chicago children nine

and ten years old who are doing most of the cooking for their families. How much better and easier these children could do this work if the schools were giving training which could be carried over into their home problems. A great many of the children whose mothers go out to work by the day are left in charge of the younger ones' food at noon, even that of the small baby. The same money put into those noon meals could be used to so much better advantage if the child had had some training in the selection and preparation of the right kind of food for a noon luncheon.

The sewing I would begin in the fourth grade on account of the necessity for the co-ordination of finer muscles.

What should be the content of the courses in the upper grades? Ever since Household Arts was introduced into the school system it has been difficult to determine what part of the subject matter should be taught in the different schools. Too much has been thought about the dividing up of subject matter and too little about the real needs of the child. The underwear and the dresses for a grade child are so different from those of a high school girl that the content of the course really takes care of itself. The stitches should be taught as need arises on garments they are making. One stitch does not necessarily presuppose the knowledge of another. The suggestion that the grade child be kept on hand work until she masters it before being allowed to use a machine shows a pitiful lack of any appreciation of the real value of this work in the public schools. A machine is a tool and should be used as any other tool when it will do the work better than the hand. The child's knowledge of the machine should grow through its use. The article made by the child should meet a real need and on this need will depend the content of the course given. This means that courses should vary widely in different localities. The large amount of time wasted in making articles which no one wants, in overcasting long seams simply to teach stitches, I hope will soon disappear from the schools. The child should be taught to make a garment in the simplest way possible and in as short a time as possible. If we are ever going to expect these children to carry the work into the homes, it must be more practical than a great deal of the teaching now being done.

The outline of work for seventh and eighth grade in the Speyer School, New York City, published in the March number of the Teachers College Record is to me the most practical outline I have seen and based on sound educational principles.

Such a course of study might not meet the needs of any other community, but if the needs of the children determine the content of the courses then their home life cannot help but be more beautiful and gracious and worth while.

THE TEACHING OF COLOR HARMONY IN RELATION TO DRESSMAKING

GERTRUDE M. COPP

MILWAUKEE GIRLS TRADE SCHOOL

Color is one of the means by which monotony is relieved both in music and art and is conveyed by waves of specific strength to the ear and eye. How harsh and tiresome the playing and singing of the person who gives each note the same degree of strength; how unattractive the food that is served if it is not embellished and how stupid the gown with no change in color. For this reason we are striving to find for each individual the suitable colors to make him attractive in the eyes of noble and wise persons. In every walk of life we must be alive to the meaning of color and to know why we like or dislike its use. The untrained girl who comes to us usually has startling ideas as to what suits her type of beauty but soon sees that something is wrong and by the time she graduates a very marked improvement is shown. As she comes in contact with the outside world she blooms into a fair example of our efforts. We cannot delve too deeply technically, but simply awaken in her mind the love of harmonies, calling attention to every day beauties for a keener enjoyment as well as practical use. Nature is a great storehouse and sets standards and combinations, never going astray, in her fish, bugs, butterflies, berries, leaves, stones, shells, etc. in an endless variety. As one sits by the open fire, watching the snapping charred log, there dawns upon his imagination a color scheme that might be used for a costume; the gray of the ashes for the dominant tone with the colors of pink, blue, or green of the flame for a singing note with the splendid black of the burnt log for character. Another example is found in the seasons, representing the changes of life; spring with its varied green mantle is emblematic of youth in its freshness and summer with its brilliant coloring of the flowers and fields early manhood and womanhood; autumn with its ripe and more sombre hues symbolizes mature life, while winter with its grays, purples and blacks and occasional bright spots together with the glowing colors of the sunset of life are modified to the dying day. Behold the dignity in the unfolding of nature's charms! As the years creep on nature tenderly and gracefully changes the tones and why should women rebel. In the animal and bird kingdoms the male is many hued to attract his mate while quite the reverse is true in the human family. The men in the early periods wore gay colors as well as the women but as the gentlemen became involved in modern

business, lace and ruffles were discarded and the colors were changed to more sombre tones (perhaps one reason for more color blindness among men than women).

Why may we not determine character by the choice of color? Is not the Quaker, of the calm and peaceful nature, clad in gray and black while his brother of Spain bedecks himself in red and yellow, betokening the love, jealousy and passion of his race? One must see that he has a color of his own as he considers his skin, eyes and hair. The colorist in whatever field of art must have an illumined mind, possessed of refinement and a nature sensitively attuned or color theories are of no avail. Artists and dyers are busy developing a wonderful riot of beautiful tones to please and tempt, for most tempting they are.

Bright or pure colors suit the young and clear complexions but may be employed as singing or climactic notes to relieve monotony of the dress of the more mature. If the complexion is too ruddy then the colors may be more neutral in order to bleach it. In our color work we have the scale of nine from black to white with the relation of the spectrum colors to each note. Each color is then raised to white for tints and lowered to black for shades; then as the color approaches the scale of black the neutral tones are found. One or more tones of a scale may be used with its contrasting note but if neutralized must be neutralized to the same extent as the keynote with a fuller intensity for brightness. The contrasting or complementary color may be found by placing the spectrum colors in order about a larger circle as Y, YYO, YO, O, OOR, OR, ROOR, RRV, R, RV, V, VVB, BV, BBV, B, BBG, BG, GBG, G, GYG, YG, YYG. The colors opposing each other are the contrasting or complementary colors. Another scale with the complementary slightly introduced into each color breaks the color and makes it more pleasing. For theatrical costumes clear colors and their complementaries with such ranges as yellow to red with opposing blue, or yellow to blue with orange, or blue to red with yellow and touches of black make charming effects. But here color plays the most important part and "My lady" is lost sight of while in the more closely related walks of life her face and character are to be the most important factor. The effect of artificial light must be taken into consideration as yellow, varying in intensity as to whether it is candle, gas, electricity or lamp light, will enter every color, sometimes making it more brilliant while deadening others.

There are three blondes, yellow, red, and brown, which we will term, Fair blonde, Ruddy blonde and Semi brunette, and two brunettes, brown and black, namely Pale and Florid with variations in all as to complexion and eyes.

The more delicate tones belong to the fair blonde, as her coloring combination of the blue of the eyes and yellow of the hair show that soft

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tones of green are the most pleasing for this type relieved by tones the same scale of green, yellow-green, orange, orange-red, or red-orange somewhat of the autumn shades.

If the eyes lack brilliancy, and this is apt to be true of every type, the force of contrast should be brought into play by adding a deeper tone of the same color or harmonizing color or black. The brilliant notes may be placed on the hat such as a light one of red, red-orange or OR. Cream-white and blue-white must be considered in all types, the first being preferable if there is yellow in the skin, while it softens the color to the skin. Fine laces and gauzy materials are refining and should be employed by all small featured women. Blue is suitable if light and not too positive but if dark is desired it must be separated from the skin by white. As blue approaches the neutral scale, warm or cold, grays may be combined effectively. If very pronounced effects are desired, greens, reds and purples are good tones to introduce. Black is effective in trimming and is suitable as a whole if there is an agreeable pink tint in the skin. Velvet is preferred to a glossy material as the latter reflects too much light and detracts from the face. Warm and cool grays are suitable for gowns with broken tones used to brighten the effect. The ruddy blonde approaches the red scale in her complexion with warm brown hair and blue eyes. She may adopt the same colors as her fair sister but they must be deeper in tone. Her skin is not so delicate hence is less sensitive to colors. Middle blues inclining toward the green and gray scales are better than those inclining toward purple, blue being the complementary of the orange which exists in the hair. If her complexion is very ruddy then the neutral and broken colors are best suited to her. Violet is a difficult and trying color because it reflects yellow and tends to make the skin appear sallowness; however on the stage the effect is splendid with combinations of old gold and jewels. A rich violet velvet hat with a cream-white velvet or crepe facing, trimmed with yellow green leaves and old gold is a very beautiful frame for the Titian haired beauty.

The first brunette has a pale skin that has a tendency to sallowness, with eyes of deep brown and hair a brown-black. Here we have a contrast of white of the skin and black of the hair, hence light or dark colors are better than medium tones. White should be cautiously used and always cream-white because this type generally belongs to the yellow scale. Black with cream-white is usually suitable. Blues must be broken because bright blues reflect orange. Warm hues of brown are good if two or three tones are combined, the lightest being gold color. In fact, warm colors generally suit this type but colors of full intensity must be cautiously chosen. Deep reds and the combinations of orange and purple and lighter tones of broken reds are favorable. The neutral yellows neutralize the yellow tints of the complexion. The type that comes in between the

blonde and brunette has grayish brown hair, gray-blue eyes and a sallow complexion so that her colors partake of both, with neutral or broken colors, which have yellow introduced.

The florid brunette has a skin approaching the olive scale with high color, eyes deep brown and hair jet black. This is the most commanding type of feminine beauty and may be found in daughters of mixed races. Yellow predominates, which when used in costume neutralizes the yellow that may exist in the skin. The color halfway between orange and green of the tertiary scale, neutralized yellow orange, and orange yellow, are suitable, as orange will neutralize an over amount of yellow in the skin. Red orange, orange red, red, and red-red violet must be cautiously introduced in the dress but would be effective in the hair or headdress. Dark red is good if the complexion is rich in red; and warm browns combined with orange, red-orange and yellow-greens slightly broken in color if refined effects are desired; or two or three tones of broken reds used together often make a pleasing result. Cream-white and glossy materials suit the present type but must be relieved by gold color and yellow.

As complexions and eyes vary with these types more careful study of their characteristics must be made. These are simply a few general rules used to help the girl to understand why certain colors are suitable to specified types, which may be modified slightly to existing variations. All we are able to do is to open the avenue of her mind and let her go on with each idea as it dawns in the going.

RAW MATERIALS IN THE TEXTILE WORK.

EDWARD F. WORST

Director of Elementary Manual Training, Chicago Public Schools.

I have often wondered why I should always come last on a program. I do appear occasionally on programs, and nine times out of ten I am the very last one. I have even thought it might be because of my name.

It seems to me that in the work of the Household Arts, we must do more for our children than the ordinary dressmaker can do. And for this reason I would encourage the study of a few of the fibers. If you do not find this plant (flax) growing near your city, have the children go out to some garden where there is a great crop of weeds, and there you will find plenty of fiber that will help the children to understand something of where fibers come from, at least.

There is no fiber that is quite so easily managed as flax. I have with me just a little that was raised in a garden, and it was done with so absolutely little trouble. This is just as it comes from the garden, after going through the retting process. The seed is sown along the latter part of April or the first of May, and it is harvested for the fiber in July. One can tell exactly the time when it should be harvested when it is to be used for the fiber. The plants are pulled instead of cut, so as to get the longest fibers possible.

I don't know why—I certainly should have known better—but I always had the idea that these stems were crushed and after the stem was crushed, that gave the fiber we are after; but that is not the way it is done, at all. It is just the stem broken out, and the fiber is simply the part that covers the inner part of the stem, the stalk. If you could not have as much fiber as I have here, you could at least have enough of the fiber to twist with your fingers, and thus get a piece of linen thread. It would be a splendid experiment to try.

In the colonial days, when they depended largely upon the flax and the wool, they had large quantities. The flax break in those days was not made of light wood like the one I have here, but was made of heavy logs scooped out like a trough, with a heavy piece to fit in the groove. Large bundles of flax were placed between these parts and broken. That is what we call hackling. It is first broken on one end and then on the other and the fiber comes very quickly. It is very easily done, and I think any child would very easily understand the process much better by

seeing the fibers developed in this way than he could possibly if you did not have the material with which to work.

I have some flax that is all ready for the spinning wheel. It is put on a distaff in this way. This is called cross combing. (The professor, with a distaff and spinning wheel, illustrated the methods used).

The fiber is very hard to break, and you can go on indefinitely pulling it out, and the spinning wheel takes care of it. Of course the natural color of the flax is like what I have here. I have also some that is bleached.

Then again, we have the wool fiber, which makes a very easy demonstration. I would not begin with the work on wool, as outlined by the Speyer School of New York. I would, however, begin with cotton on account of its being easier to wash and more apt to find its way to the wash tub. We find so many children in our foreign districts sewed up in wool for the winter. We get this wool from the farmer, just as it comes from the sheep's back, and care is taken in cleaning not to take out all the oil.

By the way, if you want a spinning wheel, if you will send to Alfred Anderson in Minneapolis you will get it. When you order, get a double-breasted wheel. He has the cards and many other things that will help you out in demonstrating this work. We card the wool and continue carding until it is fairly straightened out. A little roll is made in this way and these rolls are put onto the wheel. The beauty of this wheel is that it answers both for flax and for wool. Wool is much harder to handle than flax.

I am very much interested in weaving. There is no argument you could make with me, so far as the fact that weaving is going to be practical again for wearing apparel. I know we are not going to put it into the home as it used to be fifty years ago; but I think it is valuable in the school, and it seems to me it will mean a whole lot to these girls who are taking the course in household arts. The weaving of seventy-five years ago can hardly find a place in the modern home of today. What we must do is to adapt the old patterns of colonial days so they will harmonize in color and design with our present needs.

So often the statement is made that "It is only a mechanical process." You can make it that, if you want to. My great ambition has been to relate this weaving to manual training as well as to the household arts. We have been fairly successful in doing so. We have woven some very interesting bottoms for trays; we have woven some very interesting panels for screens, and I know we could weave pieces for foot stools to take the place of the imitation leather we are now using.

I have a few old patterns with me, particularly some old colonial patterns that are interesting and their names are just as interesting. There is the double snowball, which was woven into counterpanes and

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couch covers. Instead of using the pattern as you see it, we have used other colors, and only such parts of the design as were thought desirable. This table runner shows the difference. Harmonious colors in cotton are often used instead of wool. I will give you the names of some of the designs I have with me. This is the "orange peel," which has been woven in mercerized cotton. These, in their order, are the "pine cone bloom," the "blooming flower," the "snowball," the "double chariot wheel," the "rings and chains," the "dog tracks," "doors and windows," the "White House," "catpaw," the "cross," and the "federal knot." This one is "Bonaparte's March," and this the "fox trail." Some of them are suggestive of the names. Some not so much so.

The great difficulty I have so often found in weaving in art departments is that we plan such wonderful things. The fact is that when these designs come to the person who is to work them out, they are not practical. The person who supervised the designing of these things knew nothing about the technique of the loom. Certain patterns might be worked out, but it would be an everlasting job to do it. If the person designing knew something about the technique of the loom, more practical designs might be made. There are always changes that can be made in any of the old patterns. Any girl in the eighth grade, knowing the possibility of a certain pattern, could work out scores of designs based on the original threading. She could work out these patterns on cross stitch paper.

There is really a great deal more in weaving than most people think, and if you are at all interested, I would be glad to talk with you personally about it.

For two summers I went to Lowell, Mass., to take the course in cloth analysis. It was an aggravation to see these old bits of weaving that one could find in the neighborhood and not know how it was done. In order to understand how these patterns were made, I found it necessary to know something of cloth analysis; so I went to the Lowell Textile School and took a course in that work. On my return I had patterns from all over the country sent to me, so I have analyzed something like one hundred and twenty-five of these old counterpanes. During the time I was taking the work at Lowell, I lived at Concord and went on the street car to Lowell every morning. While I was there I became acquainted with the Prescott family, whose ancestors date back to the Revolutionary War. One day Miss Prescott said she was quite sure she had some old pieces of weaving up in the attic. She found them, and one of these pieces I have shown you was among them. She allowed me to take the piece home; I analyzed it, and this is the result.

I find that in many of these old patterns one can almost tell the nationality of the country from which it came originally; for instance,

the "Bonaparte March" undoubtedly came from France. This "fox trail" I presume is English. There are a number of them about the king and queen, which again suggest England; the olive leaf, France.

I want to call your attention now, to a few of the textiles that we use in our grades. We use jute a good deal, and it is a mighty interesting material for lower grade work. It is cheap, and a pound of it goes a long way. When you are only allowed about ten cents per pupil for a year, one must look for cheap and effective materials, and something that will go a long way.

We use candle wicking,—at least I asked for candle wicking, and this is what they sent. It suits me very well. I am told that it is not candle wicking at all, but a sausage twine. Whatever it is, it is very nice material for the second grade. I often think we are inclined to use materials that are too bulky, that make thick work when finished. We ought to take care of that and not get materials which are too heavy.

There is one thing we have been able to do in this city, and that is, to get the colors we want. We do not buy the colors from the dealers, but get our textile materials in the natural color. We furnish samples of the colors desired, and have great quantities dyed. I sometimes wonder why dealers handle the horrible grass greens, bright reds, and royal purple. It wouldn't cost a bit more to have good colors.

With your permission I would like to do a little unselfish advertising. I want to say just a little about a line of home industry in which I am interested. This work is carried on in a little town twenty-five or thirty miles down the Alton Road. That is my home, and I have always felt that I ought to make my influence felt among the people of the community, especially among the women who find it necessary to support themselves. About nine or ten years ago I had the pleasure of going through the lake regions of England, and I became very much interested in the region about Grassmere. I have been up through Scotland and through Norway and Sweden, and a couple of years ago I had the joy of going to Russia and seeing what they were doing there, in the way of furnishing work for dependent mothers.

I came back very much enthused with the idea of doing something for the people in our community who needed help. I might start out by saying I have a couple of little books on the market on construction work. I always use the royalty on those books for charitable purposes. If a woman needed a ton of coal, I got it; if a child needed a pair of shoes, I got them—as far as the money went. But, after all, that is not the best way to do charitable work. What we need to do is to make it possible for people to help themselves. I decided I would invest my royalty in looms. I bought, from time to time, a number of looms, about twenty-five in all. These looms are scattered throughout the

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town, and the people who have them are doing such work on them as makes it possible for them to support their own families. At the very beginning, I supposed that all I had to do was to help them find patterns and colors, and then help them find a market for what they did. It was not always as simple as that, but we have worked up a very nice trade. I wouldn't have you think there is any selfish motive in my talking to you about this. My compensation comes in the joy I get in making it possible for these mothers to help themselves. It has given these women work they can do in their homes, and thus give their little families the attention they should have. We have twelve or fifteen women who are interested in this work, and all the help I can give them is what I can give evenings. But it is an interesting line of work, and it is an interesting way for a woman to earn her living.

If you want any of these different kinds of weaves, or if there is anyone who wants to know about weaving, spend a week or two with Mrs. Minnie Erickson at Lockport, Ill. It is only about fifty minutes' ride from Chicago. I believe there is no other place you could get more ideas about this work, and get them quicker, than you can right there, from Mrs. Erickson, who has made a specialty of this work. These women can furnish curtain, couch covers, counterpanes, table runners, tray cloths, colonial rugs, laundry bags and fancy dress-up bags to be used for fancy work, opera bags, etc. Of course my interest in the home grew out of my interest in the school; it was only the school interest carried over into the community.

DISCUSSION.

A member: Where can we get these looms?

Mr. Worst: Write to the Handicraft Appliance Company of Joliet, or Mr. Archie McAllister, Kraker Avenue, Joliet, Ill.

A member: Does Mrs. Erickson use these different patterns in her work?

Mr. Worst: Yes, all the different patterns.

A member: Can these samples be bought?

Mr. Worst: Yes, anything here;—that is, the finished product. These little pieces are simply samples, showing the patterns. Nobody would care for them to use.

A member: That is what I mean. Are such pieces sold for samples or illustration?

Mr. Worst: Well, now, I don't know. These pieces could be bought, I suppose, but I don't know what the price of them would be. We have never had any call for this sort of thing.

A member: How do the large pieces range?

Mr. Worst : From \$7.00 to \$10.00. Table runners \$2.50 and \$3.00; fancy bags \$2.00; pillow tops \$2.00 to \$2.50.

A member: In what grades is the primitive process taught?

Mr. Worst: I never get back myself to all the primitive processes. I think the time is too short to have a child go through those primitive processes. It is all right for the teacher to demonstrate these processes, but I never felt, with the amount of work we have to cover, that we could take the child through all the primitive processes. I have never used them any more than to demonstrate.

A member: At what point do you introduce this work?

Mr. Worst: The work is really begun in the first grade. There the pupils have a combination of cotton and wool, the warp being cotton and the woof of wool. We have the combination of cotton and linen, silk and linen, etc.

A member: I mean, in which grade.

Mr. Worst: The finer combinations are introduced in the eighth grade.

A member: Have you a printed outline of your work for grade teachers?

Mr. Worst: A printed outline for the first three grades. The other outlines are just in hektograph form. We do take up, right from the very beginning, these combinations of materials.

A member: How many periods a week are devoted to this work?

Mr. Worst: The children in the lower grades are allowed 100 minutes a week for this work; in the eighth grade three hours per week; in the sixth and seventh grades the girls have cooking. I do not have charge of that or of the sewing.

A member: How can you tell when the flax is ready to harvest?

Mr. Worst: It is when the leaves near the roots begin to turn yellow. The seed has not matured. The flax for fiber must be pulled before the seed matures. It is a mighty interesting process. It took me three years to do it successfully,—that is, to harvest and prepare the flax successfully. The first crop of flax I raised, I depended largely on my Swedish neighbors. They said: "You must soak it three weeks before the process of fermentation takes place, which separates the fiber from the stem." So I soaked it three weeks and it was all spoiled, the fibers were rotted and it broke into little pieces. Then the next year I depended on some Italians, who were very free with their advice, and they said to leave it about three days in the water. So I left it for three days, and found that the fiber and stem could not be separated. The change had not taken place which was necessary before the separation could be made. The third year I banked on what some Germans told me. They said, "Leave it in the water seven days." I

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did that, and it was all right. Later I did some testing myself. I found they were all right. In Sweden the flax is put in flowing water. It is cool, and it takes longer for the process of fermentation to take place. Down in Italy they put it in standing water, and the temperature is much higher. Three days is long enough in such water. Germany is about in our latitude, so it would take about the same time for the process of fermentation to take place. So they were all, all right, and yet the process of finding it out was a little hard on me. I think the best way is to put it in standing water,—if you can find a pool, that is the best place to soak it. It is pulled and tied up into bundles and put in the water. If I have a number of bundles, I lay a board across the top and lay a few stones on top of the board. That completely immerses the flax.

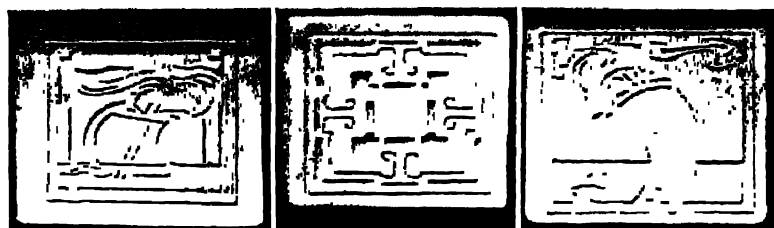
A member: Were these pieces here made by pupils in the school?

Mr. Worst: No, these pieces were not made by pupils in the school. You will find a number of pieces down in the Household Arts Exhibit that were made by pupils in the public schools.

A member: Are the schools equipped so that most of the girls get a chance at this work?

Mr. Worst: No. We have about sixty looms distributed in our public schools in Chicago. In the exhibit downstairs there is a loom made by boys of the Corkery schools. Another was made by boys in the Lane High School. The loom made by those seventh grade boys will do just as good work and is just as substantial as the one made by the high school boys. I am a great believer in group problems in manual training. I believe it is a good thing for our boys to get together and make something to leave in the school. If you can do that, you can make three looms in a school each year, and at the end of a few years there will be a nice equipment there for the hand loom weaving.

Lauretta Morrissey, of Grand Rapids, Mich., was elected chairman of the Household Arts Round Table.



Normal Art School, Handicraft Guild, Minneapolis

VOCATIONAL ROUND TABLE

L. R. ABBOTT, Presiding

Mr. Abbott: I know we are all very much disappointed that Mr. Woolman is not able to be with us this morning and take charge of this Vocational Round Table. But I always like to be a loyal member of an association, and when I am asked to do anything, I like to do its just as ably as I may. Some people have said to me, "You are good for one thing anyway, Abbott; they can hear you." It is nice to be able to do one thing.

I think we have a very profitable hour before us, and I am going to digress a little from the plan as indicated on the program, and give a short time for discussion of the papers immediately at the close of each paper.

THE BOY OR THE TRADE AS AN AIM.

IRA S. GRIFFITH

UNIVERSITY OF MISSOURI, COLUMBIA, MO.

Orientation.—Two factors are implied in the question as stated—(1) the boy, (2) the trade. By the term boy we understand the propounder of the question to have reference to the boy as an individual, emphasis being laid upon a development which considers the welfare of the boy as an individual soul rather than a cog necessary for the building up of a highly efficient national social-economic order. By "trade" we understand the questioner to be referring to the placing of emphasis upon subject matter so strongly that the boy may not be considered as an individual soul with an inherent right to its fullest development but rather as a member of society to be trained so specifically for a given place in the world's work, whether he wills or not, that chances for his making a change in his life's work are slight. By aim we understand the reference to be to that of vocational education.

Personally, we should state the question as "The boy *and* the trade as an aim." As this would preclude any chance for argument in an assembly such as this, it must be evident the program committee desired a discussion upon the relative emphasis which should be placed upon one or the other of the two factors mentioned, the boy as an individual, with subject

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matter in the way of trade instruction and experience as secondary, or upon the trade as a thing in itself by the mastery of which upon the part of a large number of boys we shall better meet economic demands of an industrial nation or of a nation fast being forced to industrialism.

The question in its general aspects is as old as life itself. It will be found manifesting itself in religion, in government, in education from the earliest recorded events of man even to the present day. It has found its answer at times in the placing of emphasis upon one of the factors, the individual, at other times the individual seems to have had no rights that needed to be respected by society.

Mention need only be made of a few of the forms thru which the question manifests itself to indicate how the pendulum swings. Among these are the following: The Individual vs. Society, Initiative vs. Imitation, Discovery vs. Authority, Inductive vs. Deductive, Psychological vs. Logical, Method vs. Subject Matter, The General vs. the Specific, Culture vs. Trade Training, Pure vs. Applied Science, Theory vs. Practice, etc., etc.

As to the present day attitude toward these things, we like to think we are eclectic—that we are progressing best when we take the best from each and strike a balance. This ideal or idea is nothing new, it may be said in passing. The ideal of the ancient Greeks as expressed by the term “Mean” implied just this same balance. It may be remarked, too, in passing, that so long as the Greeks held to and acted according to this ideal their race made progress. Only when the individual was allowed to assume a self sufficiency did the nation succumb to another.

Proposition.—It is proposed here that, as a general proposition, the Mean or Balance of the Ancient Greeks comes more nearly suggesting a satisfactory answer to the question propounded than any extreme.

To this proposition we add the following qualification: There are exceptions to the proposition but they are exceptions which but serve to prove the proposition.

Argumentation.—What we shall teach is determined by social conditions. This being the case, then subject matter must always have a large part in the make up of “aims” in educational endeavor. The subject matter of vocational education is primarily industrial from this point of view. However, when it comes to the question of how we shall teach we find a determining factor which modifies the emphasis which might otherwise be placed upon subject matter. How we shall teach is, according to pedagogical principles, to be determined by the child’s nature. This means that attention must be paid to individual needs. It is undoubtedly true that in practical application these factors tend to conflict at times one with the other. This being the case, it becomes the teacher’s duty to strive as best he can to balance them.

For example, psychologically, education must grow out of the feelings and desires of the boy. If subject matter is of such a nature that the boy's feelings or desires or interest cannot be enlisted, then the process of education is vain for that boy no matter how logically the subject matter may be organized or how valuable it may be for him considered solely from the social-economic standpoint.

On the other hand, desire must develop into efficient reactions, as judged by social-economic standards, just as rapidly as the developing nature of the boy will permit. This means a growing emphasis upon subject matter.

Reaction in the educational process may come about thru (1) random movement brought about by instinctive tendencies, (2) thru simple unconscious imitation or an imitation involving little thought power, and (3) thru reflective thinking wherein the "why" is an ever important present question.

The first is a necessary stage in every effort at habit formation. However, it is an expensive method and one which may be reduced to a minimum by making use of knowledge obtained thru race experience. There will always be a sufficient amount of random effort without needlessly encouraging its kind. One may have all the knowledge necessary about learning to ride a bicycle, but it is only by repeated trials that one learns to ride.

The second type of reaction depends upon a kind of intellectual activity which is a necessary part to the learning process but which has limitations when depended upon exclusively. Learning by or thru mere imitation with little attention to analysis and reason may make very efficient machine tenders and automatons, but it cannot make for race progress. Used as a means and not as an end this type of thinking provides a valuable aid thru which to raise the child from one stage of development to a still higher stage. For example, a boy would have to spend much time to discover thru random experiments all that goes to make a first class carpenter. Thru exercise of the imitative faculty he may rather quickly be brought to an efficient stage of development as to mere execution.

The third type of reaction is the highest—a reaction based upon feeling or desire plus an analysis of situation and a reasoning as to cause and effect. Here the "what" and the "how" of the lower type is an essential part but the horizon of mere practical expediency as to each specific experience is broadened into one of understanding thru generalized and systematized thinking of the "why." The world has always paid highest tribute to this type of reaction. The laborer in the ditch may be and is doing a worthy work and should be suitably rewarded. The world has never paid him as it has paid the engineer who planned the project of

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which digging the ditch is a part. It is hardly probable that it ever will, this side of the millenium.

Vocational education should provide for all three types of reaction as specified above. Limitations as to time and money available for educational purposes will determine the type of education a boy will be able to secure to a large extent. Mental capacity and natural fitness will enter in as factors.

Implications.—Just so long as wealth is as unevenly distributed as it is, and no greater provisions are made for education of the economically unfortunate, vocational education is doing all it can do for a large number when it provides instruction in the "what" and the "how" in the shortest possible time. There is much work to be done where the employer does not desire a "thinking" individual and where a boy taught to "think" in the largest sense of the word would be terribly unhappy.

We talk glibly of equality of men and of the dignity of labor, etc. Facts are, that in our heart of hearts we do not and never have considered the unthinking laborer as worthy of the same hire as one who has developed an intelligence which enables him to control his reactions as they affect society with the highest degree of efficiency. I take it that what we do mean is that the laborer of low degree has not received his just share in the distribution of the profits of effort industrially; that there is a moral obligation which the keener intellects have not always observed when they have taken a share which has left the common worker in poverty.

An enthusiastic advocate of vocational education or universal education of large salary may assert that he is willing to "get into the trench" and do his share of the world's dirty work. The fact remains that neither he nor any other man of equally keen intelligence is getting into the trench. The world is not asking him to do so, for it can make better use of his talents, as evidenced by the position and salary it gives him. No, the problem is not one of making a president of every boy. The problem is one of providing for the free and full development of every boy, not neglecting the less fortunate who must occupy humbler positions, as the world classifies them. Not every boy may become a Henry Ford in the industrial world. Let us hope a new day is dawning when, on the other hand, the Henry Fords of industry, commerce, etc., will recognize the fact that without the manual dexterity of the men in their factories their ingenuity and creative thinking would amount to but little. Let them reward such dexterity and make it possible for their possessors to live as human beings with something worth while in life for which to live and there will be less dissatisfaction than now exists.

Conclusion.—What has this to do with our question? Just this, there is a place for every type of reaction in the world's work—reaction with little mental effort, reaction requiring somewhat more thought power, and

reaction which demands a high degree of intelligence. Each should be provided for in our system of training. Economic conditions and mental capacity will in the main determine the group in which any child will fall until the present social order of things is radically changed.

Extended courses to develop mental grasp and skill? Yes, with all the emphasis upon individual welfare commensurate with his later position as a citizen of our commonwealth. Short unit courses? Yes, courses in which the individual welfare seemingly is sunk in specific industrial demands for a "machine tender" produced in the shortest possible time.

In other words, the emphasis at times may well be shifted from individual welfare to that of industrial demands of the trade, and vice versa, but the best product will be produced by maintaining a balance between trade or social-economic demands and individual welfare, mentally, morally and physically.

DISCUSSION.

Mr. Leavitt: I would like to get up and say that is the sanest paper I have heard upon that subject for many and many a day, and I think it will be a classic in our proceedings.

I have been thinking this thing over for a good many years, because I am in a position where I have to express myself once in a while.

I think the trouble with our school system is that we are teaching every child as if he were going to be a professional. Fortunately for us the Lord did not create us all to be mathematicians, for instance. Some of us were born to grow up and be something else, and Mr. Griffith said that it pays to get onto this thought. I imagine he would agree that some children might just as well learn the multiplication table by singing it and not have to figure out why five times six is thirty. In the same way history should not be taught as if all people were going to be historians. I knew of an instance in a school somewhere not a thousand miles from here, of a child of whom it was reported that he was not doing well in history. I tried to find out what was wrong. I knew he was reading his eyes out reading history, but when it came to history in school the teacher said he was not interested. We looked into it, tried to find out why, and came to the conclusion that he is interested enough, but he doesn't know how to organize his material. We are trying to make a plan that will help him out.

And so on, through the whole curriculum, and I thank Mr. Griffith for saying this particular thing about the shop work problem. It is not necessary to teach everybody in such a way that he can do the thinking on all subjects for himself. The Lord did not provide us all with conveniences for thinking. Let us work for the people who have

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no time or inclination or capacity for that sort of thing and teach them the "how," as Mr. Griffith said.

A member: If I understand Mr. Griffith right, he meant, by what he said about teaching the child that we were to do something to arouse his interest, to start his imagination.

Now, because a man is raised on a trade and the economical condition makes that necessary for him, it is not a sign that that man is mentally lacking. A man can exercise his imagination on a board as well as on a book; he can exercise it in cutting out a sheet of tin just as well as by putting a brush on canvas. It seems to me when we teach these boys of fourteen or fifteen years and we find their intellect almost absent, when we have poured these things into their mentality until it is hard to make any impression, hard to get a reaction, that it is the duty of the manual trainer, the man who has got to teach that boy, to use what he has there to teach him, to arouse his intellect, to make him understand, to have him see why this thing is.

I am a new man, I am not a school teacher, I am one of this submerged ten thousand. I belong to the submerged ten thousand, and I just happened to drift into this meeting of those teaching manual training, because I am curious, I wanted to see what you are doing. It seems to me if we don't do as I have suggested, we can't do anything.

What do you know about craft, you fellows who have been teaching all your lives? All of you have lived cloistered lives; you have had college, spent four years there; then you go somewhere to some fellow who teaches you the fundamentals of the craft that would take any man from four to six years to learn the first principles of, and then in the locality in which he has learned he can probably make good as a teacher of that craft; but before he has learned this craft, he has got to go from place to place in order to understand even one of the first principles of his trade. I have spent forty-six years in one trade, and ought to be able to say I know about that, every part of it, but I can't say that. There is so much to learn about it yet that when I think of myself trying to teach boys, I am simply amazed. You are not teaching anything about it. Even you teachers, when you come to do a practical piece of work have to hire mechanics to do it even while you are teaching the boys.

Mr. Griffith: I should dislike to allow the impression to get abroad that the point of view stated by the gentleman is my point of view. I am quite sure I can convince him that he misunderstood me. There was no intention on my part to indicate that there was any less opportunity for the exercise of reason in the trades or in the crafts than in any other of the so-called academic lines of activity. He certainly would misunderstand me if that was the thought which he had. The

point that I wanted to make—and I think Prof. Leavitt understood my point,—the point is this, that there is opportunity for the exercise of reason in any line of activity, whether it be the craft of wood carving or blacksmithing or machine shop or whatnot, and in many respects it is as high a type of thinking as is required in the so-called academic lines of activity. The point I wanted to make was that you must select your group and that you cannot require them all to go through the extreme analysis of the principles underlying. Let me return again to that matter of the roof framing. The gentleman speaks about mechanics being employed by men who are teaching manual training. I have underway now a dwelling in my home town and I am employing mechanics upon that dwelling. I built two houses myself, and I found that that it is financially unprofitable for me to build my own houses any longer. I think I may say that I have had some trade experience. That matter of roof framing of which I spoke in my paper illustrates my point very well. These short course men come to us and they want to get that in six weeks, and if they don't get it in the six weeks, they don't get it. In the time we have, we do not pretend to teach the whole trade, but this is what has happened: In this same town, those boys framed four houses, full sized stuff, they laid out all the framing, set it up on the floor and set it up without any help at all. I happened to be on the ground when the mechanics that I hired were working on the roof framing, and they had more difficulty than the boys had, they had to fit and try, fit and try again, over and over. But they were trying there while they were drawing \$4.50 a day, as Union men. These are facts. If a man is going to be a mechanic and not a farmer, he ought to know why and how, but many of them can't get it. The highest type of mechanic does know the why and the how and the schools are under obligation to teach him the why and the how if he has the money to come and pay for it, but not to neglect those who cannot take time or haven't the money to go into details.

SCHOOL VS. SHOP METHODS

F. D. CRAWSHAW

One might begin a discussion of this topic by saying that school methods and shop methods in industrial work are the same, or that "There ain't no such animal" as school methods. If he did this he would be telling the truth but not the whole truth. The methods in school shopwork must be the same as those in commercial shop practice so far as essential tools and fundamental operations are concerned, for it must be remembered that school methods originated with shop methods. The only difference then between school methods and shop methods must be that in the school, shop methods have been analysed and developed sequentially for the use of young people in an educative process.

Shop methods are likely to be the result of long continued practice in which the emphasis has been placed upon economic return. Operations have been unconsciously and automatically organized and reduced to their lowest number. Or, possibly, if the organization has taken place within the past few years, it has been due to conscious effort in the form of scientific management.

Speaking in educational terms the practice in commercial shop work is the result of synthetic action, the accumulation of parts or a natural survival of the fittest, if you please, while the practice in school shops may be and probably should be the result of analytical action—one which reduces operations to the form of sequential elements. On the one hand commercial shop practice is the cumulative result of deduction whereas school practice in shopwork is the fruit of induction.

Generally speaking school methods and shop methods are the same so far as the *thing done* is concerned, but the *method of doing* may be quite different, as doubtless it should be, for the school method at first certainly should take account of two facts which do not enter into commercial shop practice at all.

1st. Young children.

2nd. A learning process.

It is a significant fact that in the early history of school shopwork in this country, back in the manual labor movement period, when manual work was done by students merely for economic gain, that it failed almost utterly. We speak nowadays of vitalizing manual arts by vocationalizing it. In those early days it was wholly vocational and failed. It needed vitalizing thru a process of analysis to make it sequential and progressive and thus educational. We need to think upon this rather paradoxical situa-

tion today when so many people are crying: "Vocational, Vocational," and when the Manual Arts Committee of the N. E. A. Commission on the Reorganization of Secondary Education has written into its report these words:

"The major purpose of instruction in manual arts is to contribute directly to the vocational efficiency of the pupils." (Secondary school period).

Before we swallow such a statement whole, and that we might hope to digest its contents, may we think back to the time when manual labor as a form of vocational manual arts was a failure in schools. And may we remember also that shortly following this failure there was and has been ever since a successful manual arts in schools, notwithstanding the many statements made, by presumably learned men, to the contrary. The success was due if you please to the close analysis of handwork which was made by such men as Victor Della Voss for Russian Manual Training and by Otto Salomon for Swedish Sloyd.

But out of the din of a battle for industrial education in which the commercial forces have seemed to sweep all before them we begin to hear the faint but sure-to-be-heard cry of the educator. "The thing we need is an analysis of tool operations."

In the last analysis this is not very different from the demand for organized shop development which gave birth to the manual training movement. We need not quibble now over the reason for that demand—whether it was for logical sequence in tool manipulation for the purpose of developing skill of hand or skill of mind, each of which was the focal point of one of the two early forms of manual training. May I suggest a second significant fact:—that after thirty-five years of manual arts work in this country thru which this form of educational work has been forced to combat the implication that it was not practical we again face the opinion that what is needed is an "analysis of tool operations."

This time, to be sure, the opinion is that the analysis should be made to determine "common" elements in *different* industrial operations whereas formerly the analysis was for the purpose of securing a "sequential development" in *one* industrial or trade operation only. But is it not perfectly natural that the analysis now asked for should succeed the one which has been made by so many who have earnestly sought to determine a "logical" development in shop courses? And, further, is it not a satisfaction to those who have made the first analysis that the second is suggested as the *sine qua nom* by advocates of vocational manual arts, presumably those who believe strongly in industrial education?

I plead guilty to the charge, if it is made, that I have advocated "manual arts for vocational ends" for a number of years past,—in fact before the last industrial education egg was hatched. I will plead guilty

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also to another assumed charge, viz; that I believe in industrial education. I do so believe most strongly. Here is my contention, however; that industrial education does not mean industrial practice. It includes it but it is not synonymous with it.

Today I fear that "shop methods" means commercial shop practice which in turn means, do any job that may turn up and do it to get economic results. In other words, do it by the production methods of the commercial shop, using jigs, forms, etc., to get speed of output.

I believe that we may all agree that this is a highly desirable thing to do in advanced classes in which each member has first gone thru a course developed both from the skill-of-hand and skill-of-mind points of view. In other words it is desirable educationally as well as vocationally after the elements in any form of shopwork have been developed and practiced in the so-called craftsman type work in which one individual does a *whole* job in the most approved mechanical way. If "shop methods" necessarily means "factory methods" then, for one, I approve of them in our schools, even industrial and trade schools, only when they are introduced to further the education and not merely the training of individuals.

The educational benefits of such methods begin when those of good individual handwork end, and the *training* element in such methods is confined largely to a familiarity with a "system," not a skilled mechanical process. How be it, there may be some "*shop atmosphere*" created by following such methods at any time. In short then, the factory or shop method should be supplementary to the school method and preferably sequential with it and following it.

Perhaps my thought is best expressed in a quotation I select from an editorial in a recent issue of a popular and well-thought-of magazine: "An idle brain is in truth the 'Devil's workshop' and while we are giving young people marketable skill in some line of work, we should be sure that we are not at the same time assisting Satan in the establishment of factories."

Let us have "shop methods," "factory methods," or "productive methods," as you will, but let us have them at a time when they mean more to the boy than any other mere "pulling a string or pushing a button" process which is mere routine—the thing that all true manual arts whether in the form of industrial training or not, must ultimately overcome. Let us have shop methods, but as a part of an educative shop process preceded always by sound, methodical individual skill-of-hand and skill-of-head work.

DISCUSSION.

Mr. Henderson: I think it would be a mistake to allow this meeting to adjourn without challenging one statement made here this morning, and that is that these manual training teachers know nothing about shop practice and know nothing about trade. For one, I can make a living in a shop any time, and I can get Union cards if I want them, I am quite sure. We didn't come up coddled by our parents, even if we did go to college, and we haven't what we have altogether from professors, but from mechanics who have made good in the shop. If we have learned mechanical processes in the college shop, we have learned them from men who have been through the mill. I think if we should take the toll of the audience here, especially of the men, we should find at least fifty per cent have been through the shop, and if that is the sine qua non of making an expert teacher, I think we could qualify.

Mr. Leonard: Satan has been brought into this discussion. If Satan has any finger in this situation, it is about time for us to take hold of it. Analyzing it from a systematic academic standpoint and trying to determine from a logical detailed viewpoint, the various aspects involved and then classifying them, and then attempting to teach them to children, I think we will find they have been utterly killed, for the real work that was in them.

Mr. Crawshaw: I think it is quite true that we are dealing with experiments this morning. There is no question but what we will all agree that the older type of manual training, that which looks to sequential stereotyped production, is a thing of the past. That is a system carried to extreme.

I think likewise we will agree that if we are going to go to the other extreme with our boys that then we are doing something absolutely out of the question. What I think we want to do and we all feel we want to do is to get the happy medium. Shop work from the standpoint of the shop man and shop work from the standpoint of the teacher may be analyzed and may be made sequential in terms of blocks of material in which no two individuals at any one time in a class are doing the same thing, but underlying each they are establishing fundamental principles of shop work and detail. If that does not come near to the point of making that work shopwork of the commercial type, and if it does not come very close to making the thing analytical and systematic, I do not know what would. I believe the two things can be brought together, and in my judgment, they are being brought together under public school conditions in the manual training class by some men who have been teaching manual training ever since I have been teaching, for the last nineteen or twenty years.

The Chairman:

It will be a disappointment to you, I know, that Prof. Selvidge is not able to be present to give his paper on "Industrial Blind Alleys," but if there are no objections, I will ask to have the paper printed in the report, and we will not take time to have it read at this time.

INDUSTRIAL BLIND ALLEYS

R. W. SELVIDGE

(Summary)

Blind alley is a pretty good descriptive term for those occupations which begin anywhere and lead nowhere. In the list are included juvenile occupations as well as the adult occupations in which the worker reaches the maximum wage immediately, or almost immediately, upon entering the occupation.

The wages in these industries are low and the industries are adjusted upon the basis of the low wage. Any important change to improve the condition of the workers would necessitate a readjustment in the organization of the business and constitute a charge upon the industry. Such changes are difficult to secure although the consumer pays the charge. The American business man is so individualistic in his thinking that he cannot understand that higher wages, shorter hours, or improved conditions, when enforced upon his competitors as well as upon himself represent a charge upon the industry which the consumer must pay just as he pays the rent, insurance, etc.

We cannot eliminate these blind alley occupations from industrial life but by proper constructive legislation we can do much to improve conditions.

If our legislators knew something of pedagogy our legislation would be more effective. Our legislation should be positive and constructive. It is unfortunate that we have not developed beyond the point where we regard the function of the state as essentially negative. The state is constantly telling us we must not do this and we must not do that. The positive commands to do this or to do that are comparatively infrequent. All of us who have had experience in teaching know how inadequate negative instruction is.

In my opinion the most effective legislation with respect to the "blind

alley occupations'' will be in the direction of prescribing conditions under which people may be employed in these occupations.

First, we must say to all employers, ''You must give every worker in such an occupation ample time each week for study and attendance upon instruction, with a view of preparation for more profitable employment.''

Second, we must say to the worker, ''You must study and attend instruction which will prepare you for a more hopeful and wholesome life and make you a better and more useful citizen.''

Third, we must provide the means for this instruction.

If we would succeed in this we must address ourselves to the specific problem. New conditions confront us and we cannot rely upon traditional practices. We need not fear paternalism. A little more paternalism would be a pretty good thing for the American youth.

Journal of Proceedings

May 6, 1915, 9 A. M.

The President announced the appointment of R. W. Selvidge, Frances Mason and Royal S. Thompson as members of the Committee on Place of Meeting, and of W. S. Perry, Lucy Dorritt Hale and Ira S. Griffith as members of the Committee on Resolutions.

Nominations for members of the Committee on Nominations were called for and from those nominated, the following were elected by ballot: Lucy S. Silke, L. R. Abbott, and Frank L. Hann.

May 7, 9 A. M.

Business meeting. Reports of Officers and Committees.

REPORT OF SECRETARY, MAY 25, 1915.

CASH RECEIVED AND FORWARDED TO TREASURER SINCE LAST REPORT.

Commonwealth Art Colony, Advertising in 1914 Program (receipt No. 1101)	\$ 20.00
Carl N. Werntz, Advertising in 1915 Program (receipt No. 1026)	10.00
University of Chicago, Advertising in 1915 Program (receipt No. 1027)	10.00
University of Wisconsin, Advertising in 1915 Program (receipt No. 1028)	10.00
California School of Arts & Crafts, Advertising (receipt No. 1029)	10.00
Art Students' League, Advertising (receipt No. 3031)	10.00
New York University, Advertising (receipt No. 1586)	10.00
Editorial Board (receipt No. 1587)	270.28
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	350.28
669 Membership Fees @ \$2.00	1,388.00
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	\$1,688.28
Oct. 26, 1914, Cleveland Printing Co., Receipt Books	\$ 5.00
Dec. 2, 1914, Fowle Printing Co., Letter Heads, Envelopes, etc	27.50
Dec. 26, 1914, American Federation of Arts, 2 years subscription to "Art and Progress"	4.00
Mar. 23, 1915, Bruce Publishing Co., Stamps used in mailing circulars	18.47
Apr. 3, 1915, Emma March, Printing done in Jackson School	12.50

PROCEEDINGS

Apr. 3, 1915, Fowle Printing Co., Envelopes and Printing for Exhibit Committee	6.60
May 5, 1915, Fowle Printing Co., Programs & Envelopes	118.25
May 5, 1915, F. H. Noble Co., 1,000 Badges	65.00
May 6, 1915, Mrs. Lucinda Prince, Expenses attending meeting	65.20
May 7, 1915, Estelle P. Izor, Expenses attending meeting	11.55
May 7, 1915, Fred H. Daniels, Expenses attending meeting	78.50
May 8, 1915, R. J. Leonard, Expenses attending meeting	7.40
May 12, 1915, Fowle Printing Co., Printing Banquet Reservations	6.75
May 12, 1915, De Kalb Chronicle, Banquet Programs	6.50
May 12, 1915, Florence H. Fitch, Expenses, postage, etc	2.45
May 12, 1915, Harry E. Wood, Expenses Program Committee	8.38
May 12, 1915, Harry E. Wells, Lecture Expenses	15.00
May 21, 1915, Expenses of Secretary attending meeting	23.55
May 21, 1915, Expenses of Secretary's office	85.16

\$562.76

Expenses (Chicago Committee) Taking advance registrations.....\$ 6.00

Outstanding Accounts:—

Stout Institute, Advertising in Program	\$20.00
Chautauqua Institute, Advertising in Program	10.00
New School of Art, Advertising in Program	10.00
A. G. Randall, Advertising in Program	10.00

\$50.00

EXPENSES OF SECRETARY'S OFFICE 1914-15.

Postage as follows:

May 13, 1914, Notices to Members	\$ 2.00
Aug. 1, 1914	1.00
Mar. 3, 1915, to Advertisers	1.00
Apr. 1, 1915, Programs	30.20
Apr. 6, 1915	1.00
May 12, 1915, Postage on notices to members	6.00

Stenographic work:

May 20, 1914	2.60
Aug. 22, 1914	2.00
Dec. 28, 1914	1.38
Jan. 28, 1915	3.50
Mar. 3, 1915, Jack's Letter Service	3.00
Apr. 1, 1915	5.00
Apr. 3, 1915	5.50

PROCEEDINGS

Apr. 27, 1915	2.00
May 8, 1915, Clerk hire during meeting	2.00
May 14, 1915, Miss Brown 2 days at \$2.00	4.00
Express on envelopes to Indianapolis, Mar. 23, 1915	.30
On booklets from Ass'n of Commerce, Mar. 31, 1915	1.02
On badges, May 1, 1915	.28
Jan. 28, 1915, Envelopes 1,000	.90
July 6, 1914, Refund to Emily Dorn (dues paid twice)	4.00
Apr. 28, 1915, S. P. Co., Etching for program	1.50
Apr. 26, 1915, Exchange on check	.10
Apr. 29, 1915, Phone calls to Chicago	3.25
May 1, 1915, Phone calls to Chicago	1.00
May 8, 1915, Registration cards	.63
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	\$85.16

Signed,

WILSON H. HENDERSON,
Secretary, W. D. & M. T. Assn.

St. Louis, Mo., June 17, 1915.

I have examined the report of the Secretary, the receipts received by him from the Treasurer, Nos. 32 to 50 inclusive, the receipts given by him numbering from 1010 to 1718 inclusive, and his orders upon the Treasurer numbering from 38 to 56 inclusive, and found same to be true and correct.

Respectfully submitted,

(Signed) FRANCES B. MASON,

Auditor.

Report of Secretary received and placed on file.

TREASURER'S REPORT 6, 1914-1915

Summary Receipts:

Received from former treasurer	\$ 728.75
Received from dues	1,338.00
Received from Program 1914, \$20., 1915, \$60	80.00
Received from Editorial Board	270.28
Received, exchange on checks	.15
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	\$2,417.18

Summary Disbursements:

Editorial Board, Order No. 35, unpaid last year	50.00
Printing—Receipts books	\$ 5.00

PROCEEDINGS

Letter heads	27.00	
Exhibit committee	19.10	
Programs and envelopes	118.25	
Banquet	13.25	
		183.10
Mailing expenses		13.47
Badges		65.00
Speakers		177.65
Expenses—president		2.45
Expenses—program committee		8.38
Expenses—secretary's office		85.16
Expenses—secretary attending meeting		23.55
Expenses—American Federation of arts		4.00
		612.76
Expenses—Chicago committee, taking advance registrations		6.00
		618.76
	Total expenses	618.76
Total Receipts	\$2,417.18	
Total Expenditures	618.76	
Balance	\$1,798.42	

Signed,

L. W. WAHLSTROM,
Treasurer, W. D. & M. T. Assn.

June 17, 1915.

Have examined the above statement and found it correct.

FRANCIS B. MASON,
Auditor.

Report of Treasurer received and placed on file.

REPORT OF PROGRAM COMMITTEE

To the Western Drawing and Manual Training Association:

Your program committee offers, as its report, the program of this meeting. The committee has endeavored to present the best program representing the entire field of the Association, which the sum of \$300 appropriated by the Association, would secure.

The expenses of the program are as follows:

Mrs. Lucinda Prince, expenses	\$65.20
Miss Estelle Izor, expenses	11.55

PROCEEDINGS

Mr. Fred H. Daniels, expenses	78.50
Mr. R. J. Leonard, expenses	7.40
Mr. Harry E. Wells, Lecture expenses	15.00
Banquet programs	6.50
Postage, telegrams, and stenographic work	8.38
	<hr/>
	\$192.53

Respectfully submitted,

HARRY E. WOOD,
Chairman.

REPORT OF EXHIBIT COMMITTEE.

The following schools and cities sent exhibits, which were arranged by the Local Committee in the galleries on the second floor of the Art Institute.

All that were received on time were in place by Saturday, May 1st. Through the courtesy of the Art Institute the exhibits remained on view until Monday, May 10th.

Respectfully submitted,

ELIZABETH C. BUCKLEY.
Chairman.

LIST OF EXHIBITORS:

Grand Rapids, Mich.	Manistee, Mich.
Iron Mountain, Mich.	Hackley Manual Training School.
Western State Normal School.	Muskegon, Mich.
Kalamazoo, Mich.	Bradley Institute, Peoria, Ill.
Oak Park, Ill.	Aurora, Ill.
Riverside, Ill.	Elgin, Ill.
Rockford, Ill.	School of Fine Arts. Decatur, Ill.
Lakeside Press, Chicago.	Teachers College
Lewis Institute, Chicago.	Columbia University, N. Y.
University of Pittsburgh, Pa.	Indianapolis, Ind.
Milwaukee State Normal.	South Bend, Ind.
Kenosha, Wis.	Ohio University, Athens, Ohio.
Columbia, Mo.	School of Art, Cleveland, Ohio.
School of Education, University of Chicago.	Chicago.
Ft. Wayne, Ind.	Boulder, Colo.
Goshen, Ind.	State Normal School,
Milwaukee, Wis.	Warrensburg, Mo.
Milwaukee-Downer College.	Hammond, Ind.
Milwaukee School of Fine Arts.	Columbus, Ohio.

State Teachers College,	Lincoln, Neb.
Cedar Falls, Iowa.	Minneapolis, Minn.
Davenport, Iowa.	Handicraft Guild of Minneapolis.
Drake University, Des Moines, Iowa.	State Normal School, St. Cloud, Minn.
Cedar Rapids, Iowa.	Central High School, St. Paul, Minn.
Mankato, Minn.	Moline, Ill.

REPORT OF EDITORIAL BOARD

For year ending May 1st, 1915.

Part I of this report includes all items connected with the Proceedings of the Milwaukee meeting.

Part II contains other items handled by the chairman during his connection with the board.

PART I

RECEIPTS.

Cash received from L. W. Wahlstrom	\$ 50.00
72 copies of "Proceedings" at 50c	36.00
Received from Advertisers:	
29 One page advertisements at \$22.50	652.50
13 Half Page advertisements at \$12.50	162.50
8 Quarter page advertisements at \$7.50	60.00
2 Eighth page advertisements at \$5.00	10.00
	<hr/>
	\$971.00

Expenditures for the 1914 Proceedings.

Printing.

Pantagraph Printing and Stationery Company:

Printing 700 copies of Proceedings, 211 pages at \$1.85	\$390.35
Auditors' and Advertisers' alterations	21.80
100 Reprints of Constitution and By-Laws	2.70
700 Clasp envelopes for Proceedings	9.75
J. B. Faught, Printing 500 Post Cards	1.10

Engraving.

The Franklin Company:

1 Halftone of jewelry	3.50
4 Halftones, including retouching	16.50

PROCEEDINGS

Stenographic Reporting.

Welch & Carney:

Attendance May 6 and 7, 1914	10.00
To reporting and transcribing three addresses	13.05
Libby Miller—Stenographic services on May 8 and 9, 1914 and transcribing same	11.00

Advertising.

Industrial Arts Magazine:

Quarter page advertisement	15.00
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The School Arts Magazine:

Half page advertisement	16.00
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The Manual Arts Press:

Half page advertisement	17.46
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Postage, Etc.

Purchased and used by Pantagraph Printing & Stationery Co., 544 Nine cent stamps

48.96

Stamps purchased and used by Van Deusen in mailing manuscripts and 80 Proceedings, and in correspondence

16.00

Freight and cartage on Proceedings from Pantagraph Printing and Stationery Co.

.91

Express on manuscripts

.34

Clerical Work.

Addressing envelopes—Pantagraph Printing & Stationery Co.

4.50

Correspondence—H. Palmer

4.50

Wrapping and mailing 80 Proceedings and Correspondence—Van Deusen

7.50

Miscellaneous.

S. J. Vaughn:

Expense in soliciting and collecting for advertisements including printing, post cards, envelopes, express, postage and clerical help	35.00
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M. Emma Roberts:

Expense account including postage, express, freight and cartage	4.25
525 Post cards	5.25
Copy paper (½ ream)	.50
Paste	.05
Carbon Paper	.15

PROCEEDINGS

Photo38	
Telegram to Mrs. Kelley40	
Paid M. Emma Roberts (working capital of Editorial Board)	50.00	\$706.90
Balance on 1914 accounts		\$264.10

PART II.

Receipts:

Received from Miss Silke, May, 1912	5.00	
Received from Mr. Crawshaw, Nov. 22, 1913	10.00	
Received from Dudley Crafts Watson for 25 reprints of address	3.40	
Received from the sale of Proceedings (except 1914 Proceedings) as follows:		
1 copy of 1900 Proceedings50	
7 copies of 1902 Proceedings	3.50	
8 copies of 1903 Proceedings	4.00	
8 copies of 1904 Proceedings	4.00	
9 copies of 1906 Proceedings	4.50	
9 copies of 1907 Proceedings	4.50	
8 copies of 1908 Proceedings	4.00	
7 copies of 1909 Proceedings	3.50	
8 copies of 1910 Proceedings	4.00	
10 copies of 1911 Proceedings	5.00	
17 copies of 1912 Proceedings	8.50	
58 copies of 1913 Proceedings	29.00	\$75.00
Total receipts (except for 1914)		\$93.40

Expenditures:

Paid Bradley Polytechnic Institute July 31, 1913, for stenographic work, postage, etc.	6.48
Freight and cartage (Proceeds from Mr. Crawshaw)	8.96
Freight and cartage (Proceeds from Mr. Crawshaw)	2.31
2000 Circulars and 2000 Envelopes	23.00
Pantagraph Printing & Stationery Co. for printing 25 reprints of Dudley Crafts Watson's address	3.40

PROCEEDINGS

Clerical work—Wrapping and mailing Proceedings, sending out 2000 circulars and 500 post cards and miscellaneous correspondence—M. Van Deusen	12.00	
Express	3.15	
Postage	27.92	\$87.22
		<hr/>
		\$6.16
Balance		<hr/>
		\$270.28
Signed		
CLINTON S. VAN DEUSEN		
Chairman Editorial Board.		

On motion duly seconded, a vote of thanks was tendered to the Editorial Board for its very complete and satisfactory report.

The report of the Council as submitted by Miss Silke was as follows:

REPORT OF THE COUNCIL.

Three regular meetings have been held during the year, some matters have been settled by correspondence, and in addition several informal conferences have been held between the President and the Chicago members upon matters directly bearing upon the Chicago meeting.

At the first regular meeting, May 9, 1914, which was held in Des Moines immediately after the adjournment of the Convention, all members were present except Miss Church and Mr. Werntz. All the newly elected officers of the Association, also the retiring officers and Chairmen of Standing Committees were also present by invitation, and took part in the meeting.

1. Mr. Wilson H. Handerson was re-elected Secretary for the ensuing year.
2. The work of the Editorial Board for the year was discussed and \$50.00 of the \$700.00 appropriation was voted returned to the Board as a working fund for immediate expenses.
3. It was voted to request the Editorial Board to furnish extra copies of the 1912 Report to officers and members of the Council, to include the Constitution in the 1914 Report and to have reprints of it made to keep on hand for the use of officers and Committees.
4. The Council voted that Mr. Frank M. Leavitt be appointed to co-operate with the Committee on Standardization of Terminology.
5. The Secretary was instructed to continue the subscription to Arts and Progress.

Matters settled by correspondence were:

1. Fixing the date of the annual meeting, after conference with the Art Institute.

2. Approval of circular letters to new officers outlining the duties of each as listed in the Constitution and By-Laws.

Approval of the appointments of the President and the general form of the program for the annual meeting.

Approval of the plan of printing advertisements of Summer Schools in the program of the annual meeting.

Miss Vandalline Henkel, Auditor, having found it necessary to resign, her resignation was accepted with regret. The President requested Miss Frances B. Mason of St. Louis to serve in her place, and upon her acceptance the Council confirmed the appointment.

At the two regular meetings held in Chicago, May 5 and 6, the following matters were considered:

The report of the Editorial Board, presented by Mr. Van Deusen.

Reports of the Treasurer and Secretary, including tentative reports from the Program and Exhibit Committees.

The good management and consequent satisfactory financial condition of our affairs which these reports show were voted most commendable and encouraging.

The action of the Treasurer in putting a portion of the funds in his hands into a savings account was approved.

The report of the Editorial Board was approved, and upon their request it was voted to advance \$150.00 of their appropriation as a working fund to meet immediate expenses, instead of \$50.00 as last year.

The Secretary was authorized to prepare and have printed a regular form for bills to send to members who are in arrears for dues.

As the various reports were not complete enough for auditing before presentation it was voted that the Auditor be requested to audit them later and submit her report to the Council before publication.

3. It was voted to recommend to the Program Committee the continuance of the policy of the last two years, that speakers who are members of the Association, or by reason of their professional interest in the work of the Association might reasonably be considered prospective members, be not paid for their services.

4. The following plan for the reorganization of the Exhibit Committee and Editorial Board of the Western Drawing and Manual Training Association was presented and received the endorsement of the Council:

Hereafter the Exhibit Committee shall have entire control of all exhibits, both educational and commercial, at the annual meetings of the Association, to charge Commercial Exhibitors a reasonable amount

PROCEEDINGS

for exhibit space, this amount to be turned into the treasury of the Association and used toward defraying the expenses of the publication of the Annual Report. The Editorial Board is to have entire charge of the editing, printing and publishing of the annual report, to make a reasonable charge for advertising in the annual report, the funds so collected to be used toward defraying the expenses of publishing the annual report.

This plan will place upon each committee the responsibility for making a success of its own work. Hitherto these two committees have been so reliant upon one another that it has been difficult for the committees to do their work without confusion. The Exhibit Committee has oftentimes by its efforts earned the money which has appeared in the reports to have been earned by the Editorial Board. Advertisers in the annual report have repeatedly stated that this advertising was well worth the price which is charged for it, without the exhibit space at the annual meetings.

5. It is recommended that the Council be authorized to receive and consider suggestions for changing the name of the Association, the present name being too long, besides which it is misleading in not recognizing the large and growing Household Arts membership.

6. It is recommended that a committee be appointed to go over the Constitution and By-Laws carefully and straighten out some verbal discrepancies which make it difficult in some instances for officers and committees to define and carry out the provisions of the By-Laws.

7. The following budget was agreed upon:

For the Program Committee, \$300.00 as last year.

For the Editorial Board, \$700.00 as last year.

(\$150.00 to be advanced at once).

For the expenses of the Secretary's office, \$100.00 as last year and in addition, \$50.00 for very much needed clerical help at different times during the year.

The following matters were considered but no definite decisions arrived at, and it is therefore recommended that they be further considered by the new Council:

1. The establishment of permanent headquarters, and definite times for sending out bulletins, with the double end in view of reducing our postage rate and eliminating the annual expense of transferring files of reports and other documents which should not be destroyed and for which there is a more or less steady demand from members and outsiders.

2. The establishment of a definite date for the closing of our fiscal year, to facilitate the auditing of reports.

3. Membership in the National Federation of Arts, which is a movement worthy of our support.

4. Appointment of a membership Committee to have in charge definite work looking toward increasing and making more permanent our membership, also a more accurate and complete classification of members in our published directory.

The Council wishes to express its appreciation of the splendid work done during the year by the officers and committees of the Association to whom the flourishing condition of the Association's finances and the success of the meeting is due.

Respectfully submitted,

LUCY S. SILKE, Chairman.

CARL N. WERNITZ,

F. D. CRAWSHAW,

EMMA M. CHURCH,

B. W. SELVIDGE,

FLORENCE H. FITCH, ex-officio,

W. H. HENDERSON, ex-officio.

Chicago, May 7, 1915.

Mr Vaughn moved the acceptance of the report; seconded by Mr. Crawshaw.

Miss Silke offered an amendment to the effect that the report be adopted with its recommendations, except the one in regard to exhibits and exhibitors, which is referred back to the Council. Said amendment was accepted by the original mover and his second, the motion was put to the house and carried.

On motion, duly seconded, the naming of the chairman of the Art Round Table was left to the new program committee.

There being no other unfinished business, the meeting adjourned.

REPORT OF COMMITTEE ON RESOLUTIONS.

The members of the Western Drawing and Manual Training Association, in recognition of the many hospitalities extended to them during their convention in Chicago, wish to express their sincere appreciation to the following:

To the Board of Education of the City of Chicago, the Superintendent of Schools, The Art Institute of Chicago, and The Chicago Association of Commerce for the invitation to meet in Chicago, and for the courtesies extended.

To the Art Institute for providing the place of meeting; for the use of its galleries for the exhibits, and for the evening reception extended to the Association.

PROCEEDINGS

To the Chairman and members of the various local Committees for the many provisions of comfort and entertainment.

To Mrs. Ella Flagg Young and all others, especially invited, who have contributed to the program.

To the local art schools and other organizations for courtesies extended.

To Mr. Harry Wells for his wonderful lantern views in colored photography shown at the close of the banquet.

To those who furnished the means and opportunity for the automobile ride.

To the attendants at the place of meeting for their courteous assistance.

To the president and other officers, program, exhibit, and special committees, and all Association speakers and exhibitors, for the very valuable services rendered in making the meeting such a notable success.

Committee on Resolutions,
Walter Scott Perry,
Lucy Dorrit Hale,
Ira S. Griffith.

REPORT OF THE NOMINATING COMMITTEE.

Your Nominating Committee recommend the following named persons to serve as the officers of the Association for the ensuing year:

For President:

Mr. S. J. Vaughn, Prof. of Manual Arts, State Normal School, De Kalb, Ill.

For Vice President:

Miss Jennie W. Gilmore, Head of Dept. of Household Arts, McKinley High School, Mo.

For Treasurer:

Mr. Leonard W. Wahlstrom, Francis Parker School, Chicago, Ill.

For Auditor:

Miss Bertha Patt, Teacher of Art, State Normal School, Cedar Falls, Iowa.

For Member of the Council to serve five years:

Miss Florence H. Fitch, Director of Art, Public Schools, Indianapolis, Indiana.

The Constitution provides that the Nominating Committee shall present reasons why the person named for member of the Council is presented, and while we feel that in the present instance this is not necessary, we follow the dictate.

Miss Fitch has been an active member of this Association for about ten years, has served us in many capacities, as auditor, on special committees, and now is our very efficient retiring President. The Nominating Committee feel that she will be very valuable in the Council.

Signed,
Lucy S. Silke,
Frank L. Hann,
L. E. Abbott.

It was moved and carried to accept the report of the committee and that the Secretary be directed to cast the ballot of the Association for the officers named.

REPORT OF COMMITTEE ON PLACE OF MEETING.

To the President and Members; Western Drawing and Manual Training Association:

Most cordial invitations were received from St. Paul and Grand Rapids for the meeting in 1915 of the Western Drawing and Manual Training Association.

Inasmuch as St. Paul was less centrally located, and Grand Rapids has been trying for so many years to get a meeting of the Association; the committee recommended Grand Rapids for the place of meeting in 1916.

Advance invitations for the meeting in 1917 were received from Detroit, Cincinnati and Dayton.

The original committee appointed was made up of R. W. Selvidge, chairman, R. S. Thompson and Frances B. Mason.

As Mr. Selvidge was unexpectedly called away, Mr. G. F. Buxton was appointed as third member of the Committee, and Frances B. Mason made chairman.

Respectfully submitted,
FRANCES B. MASON,

Before leaving the chair, the ex-president, Miss Fitch, said:

May I take this opportunity to express my sincere thanks to all the members of the Association; to the officers and members of the Council; to the members of the committees, to the speakers, musicians, ushers and all others who have given me their entire co-operation in the sessions of this meeting.

It has been a pleasure to represent you, it has been a pleasure to work with you, and I have found it has been the easiest thing to do, to run this meeting as much as I have had to do with it, because all I needed to say was, "Will you be there and help me? Will you do this

PROCEEDINGS

or that?" And the reply has always been: "Yes; can I do anything else?" I thank you all again most heartily for your work which has made, I think, this Association one of the most pleasureable and helpful to us all.

List of Members

1915-1916

- Abbott, L. R., Director Manual Training,
Grand Rapids, Mich.
- Abell, Claudia N., Supervisor Art, Public Schools,
527 Laurel St., Elgin, Ill.
- Achtenhagen, O. F., Instructor Mechanical Drawing, High School,
Rock Island, Ill.
- Adam, David L., Art Teacher, Wendell Phillips High School,
843 Crescent Place, Chicago, Ill.
- Adams, T. L., Director Manual Arts, Public Schools,
2116 Harrison St., Evanston, Ill.
- Adkins, Alta, Supervisor Primary Grades, Public Schools,
Hammond, Ind.
- Ahlvin, E. C., Supervisor Art, Savanna, Ill.,
1005 Irving St., Joliet, Ill.
- Albee, Nellie, ~~Teacher~~, Public Schools,
Burlington, Wis.
- Allen, Bessie M., Director Domestic Art and Science, Normal School,
936 Clark St., Stevens Point, Wis.
- Allen, Hazel K., Home Economics, S. D. H. S.
Milwaukee, Wis.
- Allen, Francis, Domestic Art, High School,
91 Carrol St., Hammond, Ind.
- Allen, Wm. B., Dixon Crucible Co.,
1324 Monadnock Bldg., Chicago, Ill.
- Anderson, Elizabeth L., Head Art Dept., Central High School,
320 Conant Terrace, Grand Rapids, Mich.
- Anderson, Gladys, Sup. Art and Manual Tr., Warrensburg Normal,
219 W. Market, Warrensburg, Mo.
- Anderson, Madge, Instructor Art, W. D. H. S.,
134 20th St., Milwaukee, Wis.
- Anderson, A. Marie, Ass't Manual Arts, University of Wis.
Madison, Wis.
- Angrist, Mary, Art Teacher, Junior High School,
Grand Rapids, Mich.
- Ankeney, John S., Ohio State University,
Columbus, Ohio.

MEMBERS

- Arbuckle, Mabel, Assistant Supervisor, High School,
South Bend, Ind.
- Arnold, M. Louise, Supervisor Art, Public Schools,
8 Harvard Ave., University City, St. Louis, Mo.
- Arnold, Sarah F., Supervisor Art, Public Schools,
267 Downer Place, Aurora, Ill.
- Ashbrook, Leone H., Art Teacher, Sumner High School,
Cottage & Pendleton, St. Louis, Mo.
- Ashley, Geo. E., Teacher, High School,
411 W. 69th St., Chicago, Ill.
- Apgar, Nellie, Supervisor Art, Public Schools,
161 Houston Ave., Muskegon, Mich.
- Avery, Laura, Director H. H. Arts, Elementary Schools,
111 Pine St., Joliet, Ill.
- Ayres, Laura B., Teacher of Art, Elementary Schools,
828 E. 48th St., Chicago, Ill.
- Babcock, Ella L., Supervisor H. H. Arts, Public Schools,
10th & Prairie Sts., Milwaukee, Wis.
- Babcock, Eugenia B., Instr. Arts & Crafts, Union High School,
615 Madison Ave., Grand Rapids, Mich.
- Babcock, Clinton L., Vice President Bureau of Univ. Travel,
31 Trinity Pl., Boston, Mass.
- Backey, K. J., Supervisor Manual Tr., Wis. Industrial School,
Waukesha, Wis.
- Bacon, Arline, Student, Art Institute,
1041 Rush St., Chicago, Ill.
- Bailey, Chas. H., Director Manual Arts, State Teachers College,
Cedar Falls, Iowa.
- Bailey, Leonard L., Spec. Teacher of Art, Chicago Elementary Schools,
321 N. Humphrey Ave., Oak Park, Ill.
- Baird, James C., Instructor Manual Training, Public Schools,
E. Hall 29, Chicago (Morgan Park) Ill.
- Baker, Grace M., Director Art, State Normal School,
806 Main St., Whitewater, Wis.
- Baker, Ida Strawn, Commercial,
1413 N. Illinois St., Indianapolis, Ind.
- Baker, Kathryn M., School of Applied Arts,
603 S. Michigan Ave., Chicago, Ill.
- Baker, Margaret, Normal Department, Art Institute,
Chicago, Ill.
- Baldwin, Mary F., D. S., Central High School,
Fountain Street, Grand Rapids, Mich.
- Bane, Riva A., Instructor Art, High School,
Ottawa, Ill.

MEMBERS

- Barber, H. J., Teacher Manual Training, Public School,
6202 Ingleside, Chicago, Ill.
- Barnard, Beatrice, Instructor Freehand Dr., Harrison Tech. H. S.,
1853 Sherman Ave., Evanston, Ill.
- Barr, Joseph, Teacher Manual Training, Cass St. School,
Cass & Kewaunee Sts., Milwaukee, Wis.
- Bartelme, Adelaide, Instructor Drawing, Carl Schurz High School,
117 N. Loul Ave., Chicago, Ill.
- Bassett, Enid D., Supervisor Drawing, Academy of Fine Arts,
5921 Indiana Ave., Chicago, Ill.
- Bate, Gladys L., Student, Art Institute, Chicago,
Charles City, Ill.
- Bauer, Gretchen A., Instructor D. S., Public Schools,
778 So. Hohman St., Hammond, Ind.
- Bauersfeld, A. G., Instructor Patternmaking, Lane Tech. High School,
Sedgewick & Division, Chicago, Ill.
- Bawden, Wm. T., Specialist, Industrial Education, U. S. Bur. of Ed.,
Washington, D. C.
- Beachey, Margaret, Supervisor Drawing, Public Schools,
123 Chestnut St., Evansville, Ind.
- Beaker, Esther B., Instructor Dr., New Trier Twp. High School,
1831 Chicago Ave., Evanston, Ill.
- Beck, Frances, Instructor D. S., High School,
570 West St., Kenosha, Wis.
- Beck, Frances M., Supervisor Drawing, Public Schools,
310 First St., Jackson, Mich.
- Bellville, Laura M., Instructor Dr., Cincinnati Public Schools,
4225 Grove Ave., Norwood, Ohio.
- Benedict, Ida H., Director Art Department, State Normal,
611 8th St. S., Moorhead, Minn.
- Bennett, Archibald S., Manager School Arts Pub. Co.,
120 Boylston St., Boston, Mass.
- Bennett, Charles A., Bradley Polytechnic Institute,
Peoria, Ill.
- Benson, Edna G., Academy of Fine Arts,
Union, Iowa.
- Berg, Geo. W., Instructor Manual Training, Clarke St. School,
65 Chambers St., Milwaukee, Wis.
- Berlin, Flossa, Departmental Art Instructor,
Goshen, Ind.
- Beyerstedt, Ella A., Supervisor Drawing, Public Schools,
204 E. Wabasha, Winona, Minn.
- Bier, Anna, Instructor Drawing,
214 E. 4th St., Greenville, Ohio.

MEMBERS

- Bigelow, Florence, Director Domestic Art, Public Schools,
1509 N. Delaware, Indianapolis, Ind.
- Bigelow, Florence E., Instructor Art, Hyde Park High School,
5032 Prairie Ave., Chicago, Ill.
- Birkner, Susanna, Instructor D. S., Cote Brilliante School,
2832 Benton St., St. Louis, Mo.
- Birong, Marguerite, Instructor D. S., Continuation School,
Madison, Wis.
- Bishop, Eudora, Supervisor Art, Public Schools,
142 W. Liffin St., Fostoria, Ohio.
- Bishop, Lois G., Instructor D. S., Public Schools,
315 Lyon St., Grand Rapids, Mich.
- Blain, J. S., Supervisor Shop Work, Public Schools,
457 Van Buren, Gary, Ind.
- Blanchar, Ora A., Principal Girls Trade School,
18th & Wells Sts., Milwaukee, Wis.
- Blanke, Marie E., Instructor Dr., Lewis Institute,
Chicago, Ill.
- Blazier, Florence E., Supervisor D. S. and Art, Public Schools,
Rock Island, Ill.
- Bloodgood, A. C., Supervisor Manual Training,
222 Benton St., Aurora, Ill.
- Bogan, Wm. J., Lane Technical School,
Chicago, Ill.
- Bogardus, Belle, Instructor Dr., Teachers College,
2247 Talbott Ave., Indianapolis, Ind.
- Bolz, Hulda F., Instructor D. S., Eads Ave. Manual Training School,
Eads and Texas Aves., St. Louis, Mo.
- Boodel, Regina,
Harvard, Ill.
- Booth, A., Instructor Mechanical Dr., Calumet High School,
2121 Morgan Ave., Chicago, Ill.
- Bornholdt, N. J., Instructor Woodwork, Public Schools,
530 Spring St., Davenport, Iowa.
- Bourland, Morrison, B., The Bee Hive Press,
624 N. Elizabeth St., Peoria, Ill.
- Bowen, Bertha L., Instructor Dr., Tuley H. S.,
3914 Ellis Ave., Chicago, Ill.
- Bowen, Edward J., Instructor Manual Training, Arnold School,
4657 Hazel Ave., Chicago, Ill.
- Boyd, Lulu S., Supervisor Art,
358 S. Jackson, Frankfort, Ind.
- Boyd, Margaret, Instructor Art, Rockford H. S.,
416 N. Court St., Rockford, Ill.

MEMBERS

- Brace, Geo. M., Supervisor Manual Training,
1429 Com. Ave. W., St. Paul, Minn.
- Bradford, D. W., Head Manual Training & Drafting, Central High School,
104 Packard Ave., Grand Rapids, Mich.
- Brayton, Laura T., Secretary, Mrs. Ella Flagg Young,
La Salle Hotel, Chicago, Ill.
- Bristle, Ella C., Supervisor Art, Maywood, Ill., Public Schools,
800 George St., Chicago, Ill.
- Brisson, Mary J., Head of School Art Department, Ohio University,
36 W. Union St., Athens, Ohio.
- Bristol, Olive,
1710 Meinecke Ave., Milwaukee, Wis.
- Brockstedt, Alma M., Instructor D. S., Eads Ave., Schools,
St. Louis, Mo.
- Brooks, E. R., Salesman F. W. Devoe & Co.,
New York
106 Salem Ave., Dayton, Ohio.
- Browder, Omalee, Supervisor Art, Public Schools,
154 W. 13th St., Anderson, Ind.
- Brown, Flora, Academy of Fine Arts,
Island, Ohio.
- Brown, Wm., Instructor Manual Training, Oak Park High School,
2930 Groveland Ave., Chicago, Ill.
- Brown, Katherine, Instructor Art, High School,
Fort Wayne, Ind.
- Brown, Kate Louise, Supervisor Domestic Science, High School,
910 University Place, Burlington, Iowa.
- Brown, Helen R., Supervisor Art, Joliet Township High School,
Joliet, Ill.
- Brown, Myrtle,
2415 Olive St., Cedar Falls, Iowa.
- Brown, Harrison Paul, Instructor Manual Training Indianapolis, P. S.,
1605 Broadway, Indianapolis, Ind.
- Bruce, Frank M., Publisher Industrial Arts Magazine,
129 Michigan St., Milwaukee, Wis.
- Bruce, Wm. C., Managing Editor Industrial Arts Magazine,
129 Michigan St., Milwaukee, Wis.
- Brugger, Frances A., Instructor Manual Training, 27th St. School,
294 25th St., Milwaukee, Wis.
- Buck, L. Irene, Instructor Art, High School,
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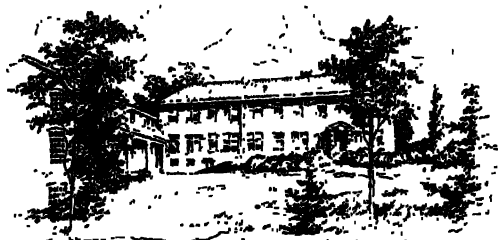
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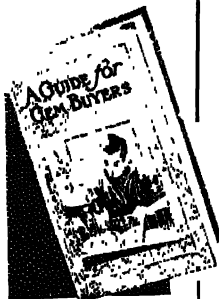


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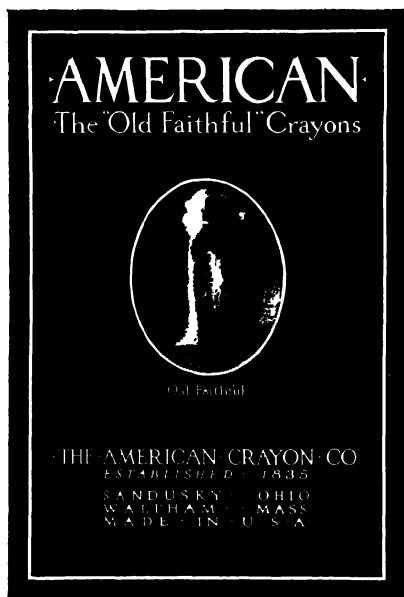
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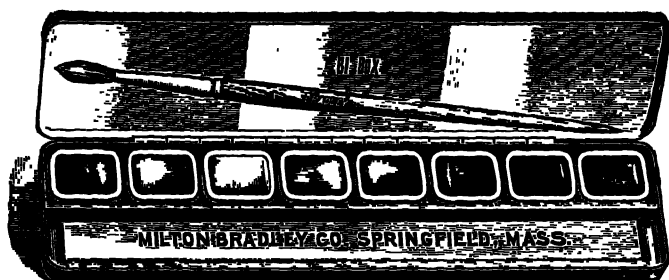
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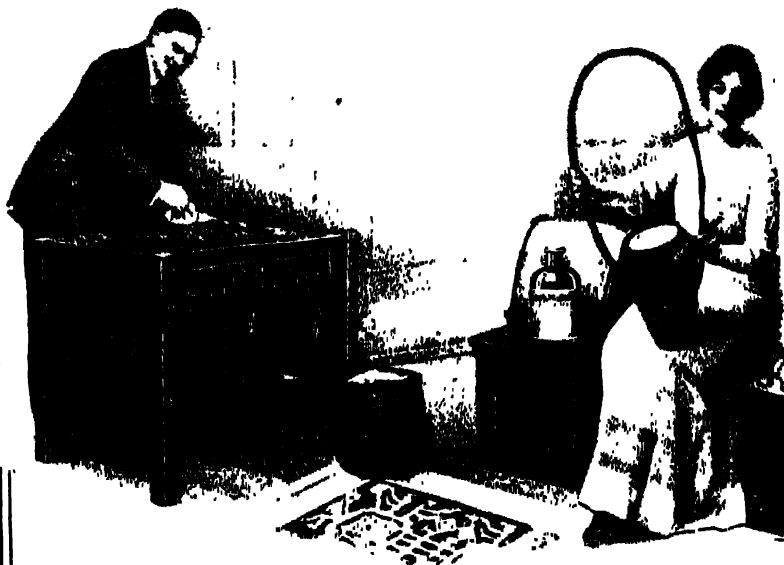
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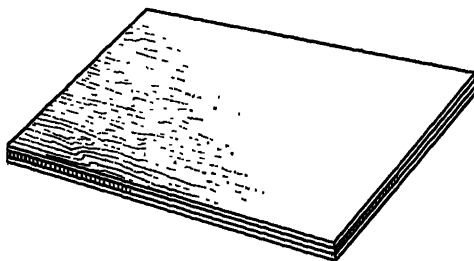
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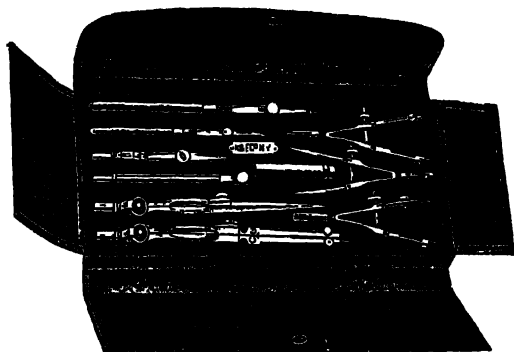
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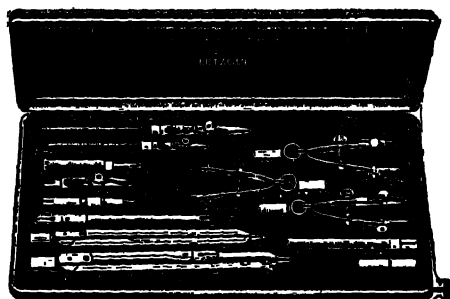
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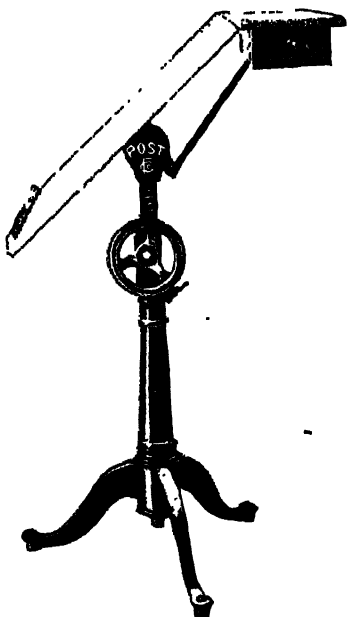
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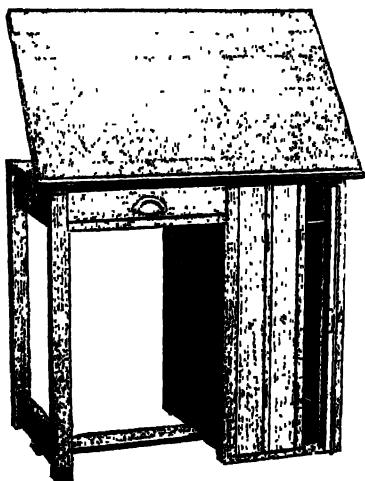
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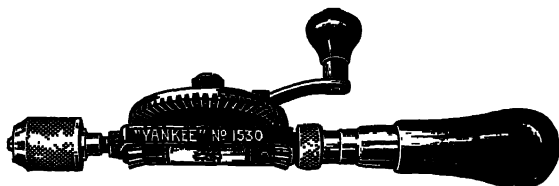
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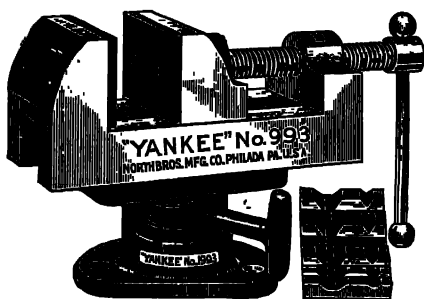
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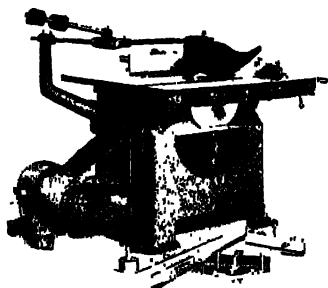
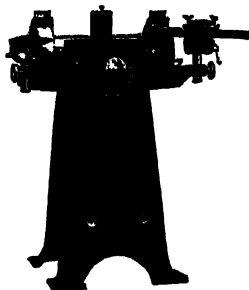
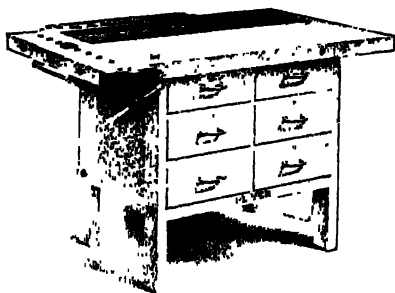
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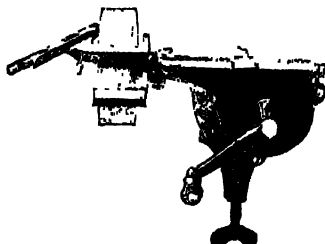
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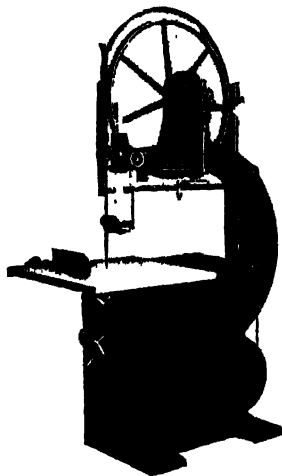
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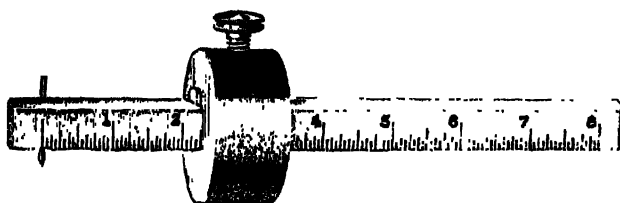
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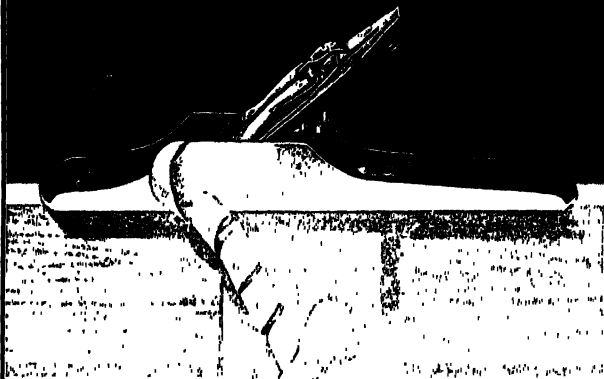
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